## Chapter 3

## MUDDY EXODUS

IN 1942, THE YEAR THE EMPIRE OF JAPAN INVADED AND occupied the British colony of Burma, hundreds of thousands of refugees, mostly British and Indian, fled the country and traveled west to India, crossing through wild rainforests and difficult mountain ranges. Asian elephants played an indispensable role in many of these escapes. Trained elephants sent into the highlands carried evacuees and their possessions across river fords and mountain passes, terrain that other types of transportation, wheeled or not, had little or no chance of traversing successfully. It is likely that thousands of refugees had some experience, during their journey, of being ferried by elephant.

The stories of three elephants in particular, fortuitously preserved in written memoirs, convey the nerve and resourcefulness of the tamed giants during this human exodus. These elephants were Rungdot, who rescued evacuees below a northern mountain pass called Chaukan; Maggie, who ferried refugees at the nearby Pangsau Pass; and Bandoola, who led a convoy of rescue elephants through a southern pass, Shenam. By examining these remarkable mass escapes and the elephants' often heroic role in aiding them, we can get a better of sense of an activity where work elephants seem most to "come into their own": the transportation of human beings

when, due to war or weather or both, the human beings' roads cannot be used.

THE REMOTE AND TREACHEROUS Chaukan Pass is some eight thousand feet above sea level, far above the normal range of wild elephants. Landslides and flooding can be especially severe here, due to a combination of glacial melt and monsoon rains. In late spring of 1942 a group of refugees, several hundred in number, fled from Burma through this pass. Most of them were British and Indian, though some Burmese were in the group too, as well as other Europeans. All the members of the party were from a railway surveying team that had been in Upper Burma plotting a possible route for a Burma-China railway—a British project that never came to fruition. Surveying work had been occurring throughout 1941.

Then came the Japanese invasion, in January 1942. The British colonial government was utterly unprepared. Though rich in timber, minerals, and agricultural land, Burma did not offer a significant resource that the Japanese military and industries desperately needed, such as oil or coal. Japan already controlled the rest of Southeast Asia, including Singapore, along with large swaths of China, especially along the coast and in the northern interior. Much of the Japanese naval fleet was far off in the Pacific, where the Japanese military strategists had ordered an attack on Pearl Harbor the month before. The British high command in India and Burma assumed that the Japanese, having committed themselves to challenging American naval supremacy, were spread thin across three fronts and could be counted on to stay out of Burma.

This proved to be a grave miscalculation. For Japanese imperialists, the value of Burma was not its extractable resources but its location. British Burma was the "back door" to China. It was in effect a wide Sino-British borderland. Chinese laborers had already

built a long, winding, all-weather road—an incredible engineering achievement at the time—that twisted and turned through the highlands of Yunnan and the Burmese Shan States. Dubbed the Burma Road, the hairpin thoroughfare linked British Burma to a large area of southern China beyond the Japanese military's reach. The British had been sending arms and supplies down this new road into China from 1938 onward, to Chiang Kai-shek's Nationalist forces. The road was making it impossible for the Japanese to bury the Chinese resistance and divert field resources elsewhere. By invading Burma, the Japanese could finally cut off this supply line.

They invaded suddenly, seizing the seaports of Moulmein and Rangoon in January 1942. The occupation of the coast was itself enough to block British access to the Burma Road, since the only way British supplies could get to Burma in the first place was by sea. But the Japanese anticipated that the British would attempt a work-around by building all-weather roads from India across the Patkai Mountains and into Upper Burma. If built, such roads would create a link to the Burma Road by land. Aiming to deny the British this potential land route, the Japanese commanders had their forces push deeper into the Burmese interior. Supplied by ships from Singapore, as well as through a mountain pass from Thailand, Japanese forces were able to move up the three main river valleys of central Burma, the Irrawaddy, Sittaung, and Salween, during the spring of 1942. By May 1, they had taken the whole country, except for a tiny, isolated pocket in the far north, an area at the foothills of the eastern Himalayas called the Putao Plain. Adjacent to the Putao Plain was the Chaukan Pass.

As the Japanese swept into Burma, the railway surveying party found themselves part of a mass exodus of Britons, Indians, and some Burmese out of the country. Hundreds of thousands of refugees had no route to the sea, as the Japanese had control of the coast. Some were able to exit by air, but there was nowhere near the air capacity needed to move so many people out of the country in so

short a period of time, especially as the number of British-controlled airfields in Burma shrank with the Japanese's rapid advance north. Most would have to cross the Patkai range to get out.

The British, who'd been in control of Burma since the nine-teenth century, had occasionally discussed building roads or rail-ways through the Patkais and the Chin Hills, so as to link Burma with British Assam and with Bengal. But the high costs, due to the engineering challenges posed by monsoon, had always seemed prohibitive. Anyway, the facilitation of Indo-Burmese trade had never really been the point of Britain's Burma colony. The British had conquered the place over the course of three wars, in 1825, 1852, and 1885, and the idea had always been to assume control of the country's resources and funnel them southward through the port of Rangoon to the British commercial empire beyond. For the British, teak was the most prized resource of all; the wood's naturally water-resistant properties made it ideal for British shipbuilding.<sup>2</sup>

With the Japanese occupation of Burma, British colonial officials saw their mistake in never developing transport through the mountains. They dusted off old plans to build roads through the Shenam Pass (which links the Imphal Plain of Manipur with central Burma's Chindwin Valley) and the Pangsau Pass (which links Assam to northern Burma's Hukawng Valley). In May 1942, though, these roads were still just ideas, and monsoon season was about to begin. There would be no fleeing Burma across the Patkais in comfortable motor vehicles. The evacuation would have to occur on foot. At the Shenam and Pangsau passes, hundreds of elephants were put to work carrying the refugees and their food supplies across the mountains, along muddy jungle paths and across dangerous river fords.

The railway surveyors were in Myitkyina (pronounced MEE-chee-na), a city in Upper Burma that lay along the upper Irrawaddy River amid the Kachin Hills. The city had a mixed population of Kachins, Shans, Karens, Burmese, Britons, and Indians. When

word spread that the Japanese were on the march from the south and rapidly approaching the Kachin Hills, large groups of Indian and British people fled into the surrounding countryside.<sup>3</sup>

British administrators in India were not giving clear evacuation instructions, and communications were generally shaky, as the Japanese had taken the major radio hub in Mandalay the previous month.<sup>4</sup> The railway party's inner circle of leaders debated what to do. One possibility was to head south to the Shenam Pass. To get there they would have to walk westward out of Myitkyina, along the road that went to the Hpakant jade mines. There they'd turn left, or southward, and cross the jade area until they reached the gold-mining region along the Uyu River. They could follow the Uyu to the Chindwin, and then the Chindwin Valley to the base of the Shenam Pass.<sup>5</sup>

The railway party knew there was already a reasonably well-organized evacuation route through the Shenam Pass, which had been taking refugees out of central Burma for months. James Howard Williams, an enterprising British "teak wallah"—a forest manager in the Burmese teak business—had succeeded in mobilizing hundreds of logging elephants out of the Chindwin Valley teak forests and toward the mountains, to assist in the evacuation. These elephants were carrying refugees out of central Burma toward the relative safety of British-held Imphal, in India. Though the railway party wouldn't have been familiar with the details of the Shenam operation, the scene of this southern escape route is worth briefly describing.

In his memoirs, Williams recalled of the Shenam Pass that "in some places it was so steep that the elephants would almost be standing on their hind legs. . . . We were as high as Hannibal when he crossed the Little St. Bernard"—an allusion to Carthaginian general Hannibal Barca's march across the European Alps with thirty-seven war elephants, in the third century B.C. 6 During the initial trek through Shenam, Williams recounted, his elephants

who were carrying women, children, and the sick, as well as baggage and food supplies-had hesitated when confronted with the intimidating clifflike slopes. He had a team cut a series of steps in the sandstone bluffs, "each just big enough to take an elephant's foot." Once that was done, he sent for his best elephant, Bandoola, who was a huge tusker, and his best mahout, Po Toke, a Burmese. "Don't worry," Po Toke half-joked. "Bandoola knows how to close his one eye on the cliff side of the path." Bandoola and Po Toke inched their way up the ascent. Po Toke was as solemn as a "pallbearer at a village funeral"—that is, until he reached Williams, who was waiting at the crest. At that point Po Toke turned to Williams and, with something of a wink, remarked, "They'll all follow now." Indeed, emboldened by Bandoola, the rest of the elephants went up as well. "I learned more in that one day about what elephants could be got to do than I had in twenty four years," the logging official Williams would later write. Throughout much of the spring of 1942, this elephant stairway through the Shenam Pass was one of the most important evacuation routes out of Burma.7

Word of the Shenam Pass escape route had spread throughout the country. But it was mostly being used by refugees from central Burma-from places like Mandalay, Taungoo, and Prome-not those as far north as Myitkyina. If the railway party made the overland trek to Williams's elephant operation at Shenam, the journey would take them far to the south, where their chances of encountering Japanese patrols increased. The party sought other options.

Another possibility was to start out trekking toward Shenam, but then to turn right, or westward, at the Hpakant jade mines. From there, they could cross the Hukawng Valley—a region notorious for intense monsoon flooding and for its mosquitoes and leeches and attempt to walk through the Pangsau Pass. The hills around this pass were poorly mapped and were reputed to have unfriendly tribes. A sign at the fork in the road near the Hpakant jade mines read, in regard to this rightward path: "This route is a death trap for women and children. Women and children should turn left."

These appeared to be the only two options: Shenam Pass to the south, where encountering Japanese patrols was likely, or Pangsau Pass to the west, where there was dangerous flooding and potentially hostile locals. But one midranking surveyor, Moses, gained the attention of the railway party's core leadership and proposed a third option: they could head north toward the Putao Plain, the one area in Burma the Japanese did not control, then hike across the Chaukan Pass, which would lead to the Dihing River, which they could follow into Assam. Moses explained that several years before, in his personal wanderings through the region, he'd crossed through the Chaukan Pass coming from India into Burma, and the journey had taken him ten days. After some deliberation, the leadership accepted the plan.9

In subsequent reports written after the Chaukan affair was over, Moses's colleagues wondered whether he had exaggerated his previous experience with the Chaukan Pass. The railway party's journey through Chaukan began poorly and ended disastrously. Moses tended to get the blame. One gets the sense, from these accounts, that as the journey progressed and the monsoon rains began, the group lost confidence in Moses, who became despondent and isolated. His status as an outsider within the European circles of the railway party—Moses was a Dutch Jew while the others were mostly Anglo and gentile—appears to have contributed to this isolation.<sup>10</sup>

In late May, the huge party of refugees set off from the Putao Plain and into the hills toward Chaukan. A monsoon storm was beginning to break, and the party rushed to traverse the mountains before the heaviest rains hit. Francis Kingdon-Ward, a British bot anist and explorer who'd visited the region during the 1920s, provides a stirring description of what these mountain forests could be like during the monsoon floods:

During the rainy season it is, of course, impossible to get along. . . . The swollen river fills its bed and comes galloping madly down from the hills; as it rushes along at the foot of the forest, it plasters the lower branches with flotsam. The stagnant air throbs with the roar of the flood and the rumble of grinding boulders. Pale wisps of clouds writhe through the tree-tops like wet smoke, and the melancholy drip, drip of the rain from the leaves sounds a perpetual dirge. There is a rank odor of decay in the jungle, though life everywhere is triumphant. Scattered over the dark squelchy ground are speckled pilei [mushroom caps] in flaring colors, and horrid fungi scar the bloated tree trunks. Pale, evil-looking saprophytes lurk beneath the creaking bamboos, and queer orchids peep from the bibulous soil. The atmosphere is foul with mold, yet life is at full flood.<sup>11</sup>

There was much confusion in the early days of the trek. One man, Gardiner, had managed to grab a map from the government office in Myitkyina (most of the maps had been destroyed so they would not fall into Japanese hands), but it showed the Chaukan area in considerably less topographic detail than the surrounding regions.12 No one knew which saddle-shaped passage through the green, gray, and white peaks was actually the Chaukan Pass. Moses seemed disoriented, saying the landscape looked completely different in the rain and mud than it had during his previous journey, which had been at a drier time of year. The path he remembered seemed to have been washed away, and mudslides had altered the terrain, erasing memorable landmarks. The party had no elephants. They were accompanied by local porters, who were mostly Kachins and Lisus. But upon seeing the conditions along the path, many of the porters turned back. The leaders of the party attempted to persuade them to stay, offering large sums of money, but the porters were resolute. Even if the Chaukan Pass could be crossed, they

reasoned, by the time they got to Assam, it would be high monsoon, and they'd have no means of returning until the dry season, a half-year away. By this time, the war might have reached the Putao Plain, where they all had families. The prospect of being stranded in India for months on end was unacceptable.<sup>13</sup>

The railway party sadly watched the porters depart. A few stayed. though, mostly Nungs, a clan of the Lisu. The refugees trudged through the long corridor of the pass, still nervous that they were following a "false" pass that led only to more mountains. Their spirits revived when they finally spotted the upper headwaters of an Assamese river, the Dihing—perhaps the worst was over! But just downhill from there, the party found itself blocked by a roaring river confluence, where the Dapha River meets the Dihing. By this point the rains were coming down in full force, and snowmelt from the white-tipped northern Patkais was pouring into these forbidding watercourses. The party of hundreds was deep in the wilderness, where there were no indigenous settlements to be found. Nor was there any hope of a British rescue party. In the confusion of the flight from Myitkyina, and in the party's rush to begin their journey before the monsoon broke, no communication had ever reached British officials in Assam telling them to expect a large party of evacuees near the Chaukan Pass.14 The party was now starving and exhausted and appeared to be trapped. - to bill all rejude considerations rejude the light of the later has a survey family.

at the Pangsau Pass. By late May, the sign near the Hpakant jade mines urging refugees to avoid the Pangsau had been taken down. The British had lost control of all of central Burma and could no longer advise stranded Europeans and Indians to make their way southward. S. Farrant Russell, the director of a missionary hospital in the railway town of Mohnyin in the Kachin Hills, not far from the jade-mining area, later recalled receiving a leaflet dropped by

airplane in mid-May: "A suspension bridge is being built over the Namyung," the major river near the Pangsau Pass. <sup>15</sup> The colonial government was now telling refugees to exit through this westward route after all. The railway party had fled Myitkyina for the Putao Plain mere days before the new message was disseminated.

Russell's memoirs, recalling his own group's journey from Mohnyin through the Pangsau Pass and into safety in India, is a remarkable piece of writing, rich with drama as well as classical and biblical allusion. Entitled *Muddy Exodus*, its references to the ancient Israelites' flight out of Egypt and across the Red Sea loom large. Russell refers to his party's march across the Hukawng Valley toward the Pangsau Pass as a trek "down the old slave road"—for "down this road had come, in past years, the Kachin slaves who had escaped from their masters in the Valley." <sup>16</sup>

Russell's party was small, some half-dozen people who were colleagues from his hospital or evacuees from Myitkyina whom he'd met along the Hukawng Valley trail. Many other parties of evacuees were marching toward the Pangsau Pass as well-on the trail Russell met Karens, Kachins, and Burmese, along with Britons and Indians.17 The Hukawng Valley itself was something of a terra incognita for colonists. The colonial commercial interests had never considered the area profitable for teak, nor was it along a corridor that naturally linked two railway hubs. The Hukawng Valley was, perhaps, less out of the way than the Putao Plain, but colonial administrators had always given the latter more attention, perhaps because of the way it jumped out on a topographic map of Burma. While the British had developed an important base in Putao Plain, Fort Hertz, there was no similar outpost in the Hukawng Valley. Hukawng was an easy place to overlook. Many people here kept domesticated elephants. There were also large herds of wild elephants and prides of tigers.

Due to its setting, the valley was especially flood-prone. "Before our journey ended," Russell would write, "we were destined to

learn a good deal about mud, of different qualities." During the torrential downpours,

the path became a rushing cataract of yellow water, each great footprint left by an elephant, a deep puddle. On the slopes, it was difficult to stand; one looked desperately for any projecting root or stump, against which to place the foot, or for any overhanging branch or bamboo, by which to haul oneself up.

Conditions did not improve during the brief letups between storms. The mud was so sticky and glutinous that, as Russell put it, "one learnt to sympathize heartily with a fly on a fly-paper." This adhesive type mud stuck to the travelers' boots, which took on a new stratum of mud with each step, until eventually the boots came off from the sheer weight of the mud. Some tried tying their shoes in place with string or canvas, but these wraps disintegrated or unraveled from the water and the friction of the march. Others gave up and went barefoot. But there were leeches, which released anticoagulants into the skin. This allowed bitemarks to become open wounds, which led to dangerous infections from dirt and dung. 19

As we trudged through the jungle, in dark overgrown places which for thousands of years had remained undisturbed, I felt a strange feeling of insecurity among those stately, wicked,

Another traveler through this pass described the grim milieu:

bearded trees which seemed to conspire with their long-clawed parasitical creepers to seize our clothing. . . . The rain pattered

down as hard as ever.... The soggy drenched ground was

churned into numerous muddy pits.20

But the transport elephants along the road had no problem with the mud. Their feet contracted along a complex pattern of musculature, allowing their legs to sink down several inches through the mire, to a point where it was neither slippery nor sticky. Here the toes would expand for stability. Every elephant performed this maneuver instinctively and automatically with each step. They'd practiced it with every passing generation since being pushed out of the grassy valleys of India and China and into these rainy hills, thousands of years ago. The elephants were a bright spot in an otherwise bleak and frightening march. The Russell party had with them a female elephant named Maggie, or *magwi*, the Kachin word for elephant.

Approaching the Pangsau Pass, Russell passed by morbid scenes. Next to wrecked trucks huddled groups of the injured. Elephants were sometimes employed in turning the trucks upright or in pulling them out of the mud.<sup>23</sup> Mostly the vehicles were abandoned. The track was increasingly less usable for such machines as the journey went on. A recent "cyclonic storm" had torn a narrow lane through the jungle, felling huge timbers and blocking the path.<sup>24</sup> Around this area, the Hukawng Valley's main river, the Tanai, forces its way through a narrow gorge in the Patkai foothills—an obstruction that causes a greater part of the lower valley to flood during the rains, and the rains were already falling heavily.

On the approach to this gorge, the marchers encountered fewer trucks. Russell now saw only other weary refugees, some mules (who like the humans struggled in the mud, their hooved legs sinking into the earth like signposts), and elephants. A group of some thirty timber elephants came up from behind Russell's group on the road and overtook them. They'd been marched to this spot from some timber area to the southeast that had fallen into Japanese hands, Russell supposed. Likely, they were being taken to the Pangsau Pass to assist in evacuations and to carry supplies for the initial stages of the all-weather Ledo Road, whose construction, it was hoped, could help turn the tide of the war. The elephant herd came to a large, rumbling river and waded to a broad sandbank in the

middle of the channel. Beyond the sandbank, the current became much swifter. A great tusker led the way, and some of the bolder elephants followed, swimming through the oncoming rush of the current. But many elephants stayed put on the sandbank, some looking back to the east from whence they came. In all, only half completed the crossing. The rest "strode into the further jungles and were seen no more," going over into the wild.<sup>25</sup>

The refugees continued through more Kachin villages where fellow refugees occupied every available foot of space. The mud was worse than ever. Maggie was heavily laden and breathing hard through the ascent through the hills. The Russell party heard rumors (that "curled over the hillsides like the mists") that a recent rainfall had rendered the upcoming Namyung River uncrossable, "a swelling Jordan." This was the river that the airdropped leaflet had promised could be crossed by a suspension bridge. There was none to be found. In a scene mirroring that of the railway party at the confluence of the Dapha and the Dihing, hundreds of people were stranded at the Namyung. Some built makeshift bamboo rafts and tried to get across that way. The rafts capsized or broke apart, and the passengers either struggled back to shore or were lost in the current. 26

Russell and his fellow travelers arrived at this ford. The place was called Tagap. Upon seeing the condition of the river, Maggie's Kachin mahout refused to go any farther. Like the porters who'd refused to proceed to the Chaukan Pass, this mahout had family back in the Kachin Hills. He saw that crossing through the mountains would strand him in India for many months. Before he left to return back to Burma, he did his best to teach Russell and his colleagues the needed command terms for Maggie. "We were determined to do our best to drive her ourselves," Russell later wrote. "But the real difficulty was the finding of Maggie in the early morning." They considered tying her up at night, against custom, but realized they wouldn't be able to fetch enough food for her. Release

ing her at night was the only option, yet the party hadn't any idea how to do it. "The situation seemed hopeless"—when another refugee, an ethnic Burmese, happened to arrive at the Tagap ford. The man had owned and ridden elephants earlier in his life and agreed to drive and ride Maggie into Assam.

Now joined by the Burmese mahout, Russell's small party waited for calm weather and, when it arrived, made the river crossing borne by Maggie. Wishing to help the hundreds of people still stranded on the other bank, Russell and his fellow travelers then spent the day riding Maggie up and down nearby slopes to fetch cane from the surrounding woods. From the gathered cane, they wove a very long rope. Recrossing the Namyung, they linked their rope to trees on both sides of the river, so that other refugees, lacking elephants, could at least have a chance of hoisting themselves across by hand. It was a fine idea, but they could not fully fasten the line, and a group of refugees became stranded midway across the river.<sup>27</sup>

"This was to prove Maggie's finest hour," Russell recalled. The powerful elephant, already exhausted from the climb through the mountains, returned again and again for more passengers and their bags of food and supplies—loading men, women, and children, "ever returning for another burden." Russell described her combination of perseverance and acute situational awareness over the course of these labors. At one point, while stepping down a slope toward the river, she stiffened, refusing to take another step. The Burmese mahout above her, and several other humans, yelled for her to move. She wouldn't budge. Investigating the path, those present realized that it had become dangerously undercut by the water. Another step, and it would collapse under her bulk. Maggie had detected the problem well before the humans did. They found a different path.

At another point, while crossing the river, the mahout noticed a group of women who were stranded midstream. There they huddled together, clearly overwhelmed and exhausted, and the cur-

rent seemed likely to sweep them off their feet at any moment. The mahout, yelling, steered Maggie in the women's direction. Maggie intuited what was needed. She waded alongside the women, on their upstream side, breaking the current. She then proceeded across the river more slowly than usual, so the women could follow along in this pocket of tranquillity.<sup>28</sup>

Everywhere the scene was full of life and death and mist and mud. There were wounded soldiers on one bank, from the China front, the smell of whose wounds filled the air. Elsewhere a woman was in labor. "The poor family had been on the move from faraway Lashio," Russell would write. "The third member had decided to enter this unfriendly world at a most inopportune time." Grateful for some way to be useful, Russell fetched what medical instruments he could—a knife, a piece of parachute cord, a bottle of rainwater—and assisted in delivering the child, a girl. Russell called the crossing a "jungle Styx," a reference to the river in Greek mythology separating the worlds of the living and the dead.<sup>30</sup>

THE SAME WEEK that Russell and his party finally traversed the Pangsau Pass, the railway party refugees camped beneath Chaukan. Without elephants, the party was trapped at the deluged confluence of the Dihing and Dapha rivers, deep in the Patkai wilderness.

Somehow an SOS would have to reach one of the British stations farther down the Dihing Valley. The Nung porters proposed that somewhere upstream on the Dapha, there was likely still a wadable crossing point. However, as the monsoon worsened, the location of that crossing would surely migrate farther and farther upstream. During the high monsoon months of July and August, it might disappear altogether. A small group of healthy men might be able to "catch" that last crossable point, before it retreated up into the high

mountains. Then this group could walk into Assam and deliver the SOS. Two British men, Leyden and Millar, went to find this last crossing, along with a dozen of the Nung porters.

From the records, one gets a strong sense that the real leaders of this SOS mission were the Nungs (none of whose names appear to have been recorded), and Leyden and Millar were sent along simply to give the message a veneer of credibility when, hopefully, they reached a British station down in the valley.<sup>31</sup> And it was indeed one of the Nungs who found that hypothesized last crossable point. The SOS party had already hiked a day's trek from the main camp of refugees, when a Nung who'd run up ahead returned to them with bad news to report. The river ahead was mostly rapids, full of dangerous rocks and debris. There was a waterfall and precipice eventually, and the advance scout thought it likely that above the waterfall the river would be gentle. But it would take another full day's march to get up the precipice and another day to get down, and the SOS party was already exhausted and half-starving.<sup>32</sup>

Suddenly another Nung was at the river below, wading across—barely. For much of the crossing, the man permitted himself to be swept along a bit by the current. But by keeping his feet pressed against the rocks and periodically pushing off at an angle, he made progress and reached the opposite bank. Having achieved this, he made his way back toward the rest of the party, which had been watching him with amazement. The party then formed a human chain and crossed together. This was likely the last day that year that such a crossing over the Dapha River was feasible.<sup>33</sup>

The Leyden and Millar party delivered their SOS at a British station called Simon in early June. The message was handed off to the British official responsible for organizing work elephants in the area, a tea planter named Gyles Mackrell. During May, Mackrell had coordinated the mobilization of elephants from Assam up toward the Pangsau Pass area. These elephants were there to help Pang-

sau refugees cross the difficult fords near the pass, especially at the Namyung River. Upon learning of the party trapped at the Dapha-Dihing confluence near the Chaukan Pass, Mackrell organized a rescue convoy of one hundred elephants. The elephants were hired from Kachin and Hkamti chiefs in the Dihing and Lohit valleys.

The rescue party set off toward the Chaukan Pass. The elephants, as usual, were permitted to roam for fodder at night. At one point on their way up the Dihing, the rescue convoy crossed paths with a herd of wild elephants, and a work elephant absconded with the wild group. But mostly the elephants remained focused on the task at hand.<sup>34</sup>

The rescue team reached the river confluence on June 9. A large group of refugees could be seen on the opposite shore, waving, their shouts drowned out by the roar of the river. But this was not the entirety of the railway party. Desperate and starving to death, the group had split into multiple smaller parties, mostly along linguistic lines. Anglos, Sikhs, Gurkas—everybody was spread out in the soggy wet forest, looking for safe passage and for food. None of the splinter parties had found a way across the river. Mackrell's rescue convoy would have to find as many of these lost parties as they could.

But first, the convoy would have to cross the Dapha. The conditions along the river were far worse than when the SOS party had departed two weeks before. The river's white-capped waves produced a deafening roar. Furious collisions between unstable boulders and drifting logs created billowing clouds of white mist. The elephants hesitated. Mackrell demanded that the convoy's best elephant be summoned, a huge tusker named Rungdot. The previous month Mackrell had been with Rungdot in a similar, if less intense, situation at a river called the Namphuk, near Ledo. Here a rainstorm had swept away a cane suspension bridge. The other elephants had followed Rungdot's lead across the ford. Rungdot was now asked

to do the same thing, at a much larger river, leading a much bigger group of elephants, with hundreds of human lives at stake.

Mackrell, incredibly, had brought a movie camera with him, and he filmed the efforts of a large tusker, likely Rungdot.<sup>37</sup> In the footage, the tusker and his mahout can be seen stepping into large undulating waves. The elephant leans his head into the current for stability, while the mahout, soaking wet, clings to the elephant's neck, communicating entirely with foot-taps to the ears, as the thundering noise of the rapids must have drowned out speech.<sup>38</sup> Mackrell indicates in his notes that this particular moment caught on film was not a successful crossing, and that the elephant and mahout had to wait until the weather calmed to try the ford again. Rungdot finally got across the next morning, and the other elephants followed, just as Mackrell had anticipated.<sup>39</sup> Soon Rungdot and the elephant convoy ferried dozens of people at the encampment to safety.

The rescue still wasn't over. The many splinter parties that had abandoned the main refugee group still had to be found. Over the remainder of the summer, the site at the river confluence became a sprawling elephant camp, a logistical nerve center for the rescue operation. One wartime writer whimsically called this camp "Paradise Regained." The rescue team needed the elephants not only to ferry people across the rough current of the river but also to carry search parties in the surrounding forest and to retrieve supply crates dropped by plane. These heroic efforts mitigated the scope of the disaster but could not recover everybody. A large fraction of the original railway party—apparently as much as a third—was never accounted for.

THE RECORDS from the Chaukan rescue provide precious little information about Rungdot, and nothing at all about Rungdot's mahout. Mackrell's notes refer in passing to the mahout as an ethnic

Hkamti, but the British tea planter's understanding of tribal affiliations seems blurry. Mackrell sometimes used the ethnonym "Mishmi" as a blanket term for the local porters and trackers, and "Kamti" as a blanket term for the mahouts.<sup>43</sup> He does not mention the Kachins at all (or Singphos, as they likely would be called in that region).

According to tribal elephant mahouts living in the Chaukan region today, the mahouts who went with Mackrell were all Kachin and Hkamti.44 Furthermore, Rungdot was certainly a Kachin elephant, lent by a Singpho-Kachin chief, Bisa. The Bisa family is still influential in the region. I visited their main house, in the tea gardens beyond Ledo, in January 2016. The Bisa elder who greeted me. Bisa Laknung, was the grandson of Bisa Jonga, the man who lent Rungdot and many other elephants to Mackrell for the huge rescue operation. The Bisas are the kind of powerful local tribal family without whose help the rescue would have been utterly impossible. It's said that the Bisas first attained power in the seventeenth century, by offering refuge to a deposed monarch, Gadadhar, from the Ahom kingdom farther down the Brahmaputra Valley. Gadadhar rebuilt his strength in the Singpho Hills and eventually retook power in the Ahom kingdom. The Bisas were rewarded with royally mandated landlord status in the Singpho Hills. During the nineteenth century, the Bisas reinvigorated their privileged political position in the area by helping the British establish tea plantations along the Old Dihing River. (The river bifurcates into a new and an old branch after it exits the Patkai Mountains at Miao.) Under the British they became formal majumdars, tribal leaders responsible for collecting revenues from the surrounding hills.45

Bisa Laknung grew up after the war, with many elephants—Rungdot among them. He remembered playing with Rungdot when he was a boy and going on rides with him in the forest. The elephant was especially quick in retrieving items dropped on the forest floor or in the middle of a river.

"He was a really very huge tusker," Bisa Laknung recalled. We were sitting in small plastic chairs outside his house, a sprawling hybrid of modern concrete and traditional Kachin bamboo architecture. Both the concrete and the bamboo wings of the house had steep-pitched rooflines, characteristic of Kachin huts in the hills. "He was nine and a half feet at the shoulder. Like many of the best elephants, he was actually born with us, not in the wild. I grew up with stories about his father, Klangdot, who must have been born in the nineteenth century sometime."

I asked about Rungdot's mahout during the war.

"Rungdot had many mahouts over the years. I don't know which one it was during the war. The elephant rider I remember best from my childhood was named Siong Gam. But he wasn't Rungdot's mahout—he was a fandi, an elephant catcher. His khoonkie was named Grammon." The conversation's turn from mahouts and fording elephants to fandis and khoonkies didn't surprise me. In the Trans-Patkai area, fandis are generally perceived as more prestigious, and therefore more memorable, than mahouts. Nonetheless, I pressed for more information about Rungdot.

Bisa Laknung acquiesced. "He died at around the age of seventy. It was 1972, 1973 maybe. We'd been letting him roam in the forests near Digboi. Sometimes we'd have him do some logging work, or we'd need him for transportation. Even after the war, you really needed elephants for transportation here. Not so much like now. Maybe Rungdot made elephant babies in the Digboi forest, but we'd have no way of knowing that."

Bisa Laknung's son and two grandsons were with us. The family was clearly very proud of its connection to this chapter of the war. They'd lent out elephants not only for the Chaukan Pass rescue but also for rescues at the Pangsau Pass. Later in the war, their elephant teams assisted in the early stages of building the Ledo Road, which starts not far from the Bisas' house and then winds upward through

the hills toward the Pangsau Pass. From there, the road crosses the Hukawng Valley and loops through Myitkyina, turning south to finally meet the original Burma Road, which goes into China. With the completion of the Ledo Road in 1945, the British in India were finally able to supply the Chinese resistance by way of an all-land route. By this time the war's tide had already turned. In the 1990s, the Bisas hosted a reunion of American veterans who'd been stationed along the road. The family showed me a home video they'd made: families had come from Texas, Arkansas, and Michigan to the tea gardens of Ledo.<sup>46</sup>

The fading of the mahouts from memory—whether oral or archival—is disappointing. They were, after all, the humans most responsible for the rescues. In the case of Maggie's unnamed Burmese mahout, one wonders whether, for one reason or another, Russell wanted to protect his identity. In the case of the Chaukan episode, author Andrew Martin proposes that a kind of class divide separated the mahouts from everybody else involved in the operation. The mahouts "combined the independence of all taxi drivers with the unionized bolshiness of some train drivers," Martin opines.47 This coheres with the recollections of James Howard Williams, the official in charge of elephant logistics around the Shenam Pass. In his memoirs, Williams remembered having to deal with strikes and labor agitation among the mahouts of the Burmese teak forests during the 1920s.48 Martin cites a similar type of incident during the Chaukan rescue, in which Mackrell placed one of the mahouts, Ragoo, under arrest. Ragoo had been organizing his fellow mahouts to demand better pay for their involvement in the rescue. The other mahouts agreed to continue working at existing wages, but only if Ragoo was set free. 49

Of course, elephants in these situations had their own way of going "on strike." They could refuse to do the tasks before them. They could steal off into the forest at night. But the officials always

seemed more eager to remember the names of the elephants than of the mahouts who knew the elephants best, and who represented half of the relationship that made these daring operations possible.

BANDOOLA, MAGGIE, RUNGDOT: these were just a few of the elephants who assisted in the human exodus across the Patkais. They were the ones who happened to cross paths with Westerners, whoarmed with cameras or possessed of a desire to pen memoirs-told the evacuation elephants' story after the war. Many other elephants, numbering in the hundreds, were also involved in these operations. Some of them appear in other accounts, though we rarely find such detailed narratives. A British captain, R. H. Gribble, recalled chatting with his Kachin mahout as they approached the Pangsau Pass in 1942. The mahout turned to him and said, "Do you know that elephants used to be men—that is why they have so much intelligence?"

The Kachin looked so serious when he said it that Captain Gribble almost believed him. "Thank god they now have four powerful legs," he replied. "Otherwise our chances of getting out of this jungle would be remote." The two men laughed.50

By 1943, the main movement through the Pangsau Pass was by British and American troops coming in the other direction, from India into Burma. The Allied armies were gradually chipping away at the Japanese occupation, and the elephants were still essential. One major recalled that "Shan and Kachin mahouts jabbered at ex-clerks from the North of England on how to handle the mortarcarrying elephants."51

Another soldier, Ian Fellowes-Gordon, remembered being assisted by a Hkamti elephant named Ma Gam, during a mission to take supplies from the Putao Plain through the Kachin jungle to the Burma Road. At the southern edge of the Putao Plain, the platoon reached a village where they'd hoped to eat and rest for the night,

only to find it abandoned due to the war. One house remained standing, but its roof had collapsed in the storms. The platoon slept there anyway, exposed to the pouring nighttime rain. "Only Ma Gam was happy," recalled Fellowes-Gordon, "thundering about his jungle in search of leaves while the humans soaked slowly indoors." <sup>52</sup>

In 1943 and 1944, as the British moved back into the Chindwin Valley, they repurposed many of the work elephants as "sappers": bridge construction labor. The elephants proved uniquely useful at hauling teak logs from nearby forests to the bridge construction sites and at hoisting the timber upward onto pylons.<sup>53</sup> The ingenious "safety lock" elephant we met in Chapter 2 devised his technique at such a work site.

Throughout their occupation of Burma, the Japanese also employed hundreds of elephants and mahouts, mostly for timber and infrastructure-building projects. While the British had their Bombay-Burma Timber Corporation, the Japanese had their Nippon-Burma Timber Union: both were elephant logging corporations.<sup>54</sup> While the British used elephants to help build teak bridges along the Chindwin Valley and along the northern Ledo Road, the Japanese employed some four hundred elephants in the construction of the Burma-Siam Railway. This Japanese project was designed to link Bangkok to the Burmese seaport and rail terminus at Moulmein, thus hastening the flow of supplies to Japanese-occupied Burma. The Japanese high command hoped this would undercut the Allies' Ledo and Burma road projects in the north. Along the Burma-Siam Railway, elephants crashed paths through the thick jungles of the Karen Hills. They also carried barrels of water, which construction workers needed continuously, not only for themselves but also to wash their boring drills when they clogged with mud.55 The Japanese also took 350 logistics elephants with them during their foray into Manipur, India, in 1944.6

The Japanese were cruel to their elephants, according to Williams, refusing to let them roam in the forest at night, for fear that

the mahouts would use the morning fetch as an opportunity to desert. <sup>57</sup> It's hard to know how much credence to give Williams here, in this characterization of the other side. A Burmese teak and elephant official, U Toke Gale, writing after Burmese independence, agreed that the Japanese commanders tended to mistreat and overwork the elephants. But Gale seems to have been close with the British teak wallahs earlier in his life, during the colonial period (Gale makes this clear enough in his book), so his memories of the war might have been colored by those previous friendships. <sup>58</sup>

The later recollections of some Japanese soldiers deployed along the Burma-Siam Railway suggest that in tending to the elephants, the Japanese followed the usual local methods: a nightly roaming period followed by the morning fetch. "Everyone took good care of the elephants," former soldier Abe Hiroshi told an interviewer in the early 1990s. "Even Japanese soldiers who beat up Burmese never took it out on the elephants." Hiroshi described how the Japanese overseers would let the elephants loose in the mountains in the evening:

They'd search for wild bananas and bamboo overnight and cover themselves with dirt to keep from being eaten up by insects. In the morning the Burmese mahouts would track them down from their footprints. They'd usually be no more than one or two kilometers away. Then they'd get a morning bath in the river. Each mahout would scrub his own elephant with a brush. The elephants looked so comfortable, rolling over and over in the river. It took about thirty minutes. Then they had full stomachs and were clean and in a good mood. Now you could put a saddle mount or pulling chains on them and they'd listen to commands and do a good day's work. 59

Ian Denys Peek, a British POW who was made to work along the Burma-Siam Railway, would later write that for his Japanese work-

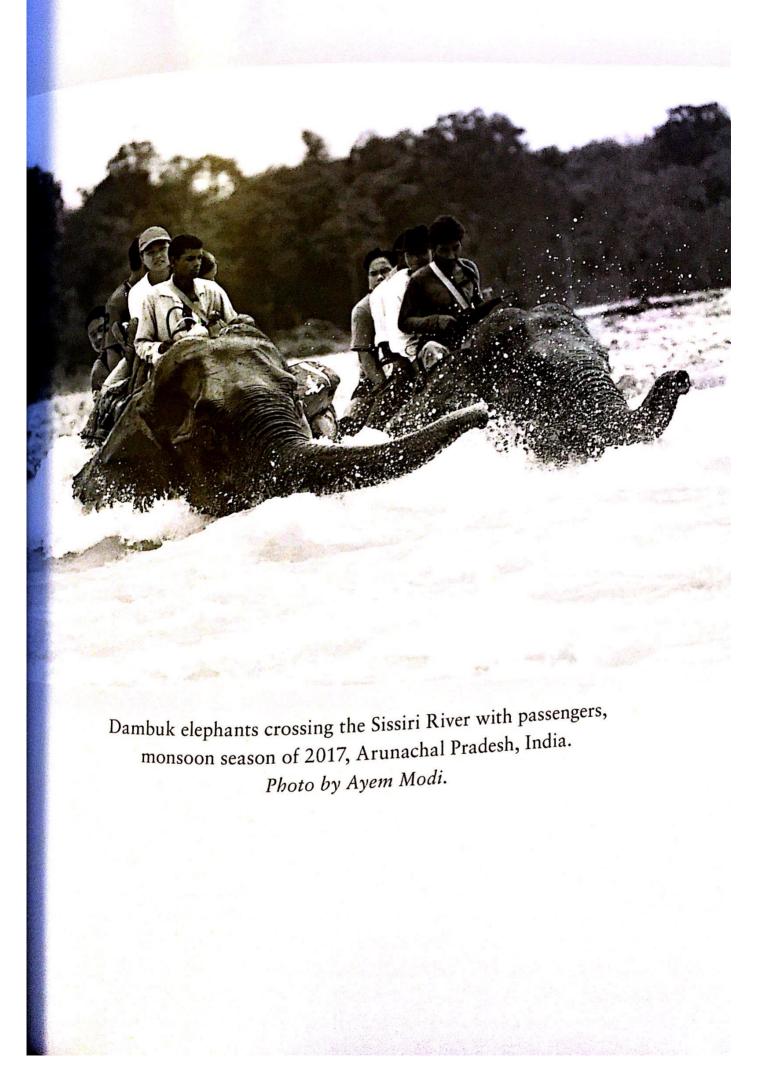
masters, a POW was in effect "one fourteenth of an elephant." His account too seems to contradict Williams's impression of how the Japanese treated their elephants.<sup>60</sup>

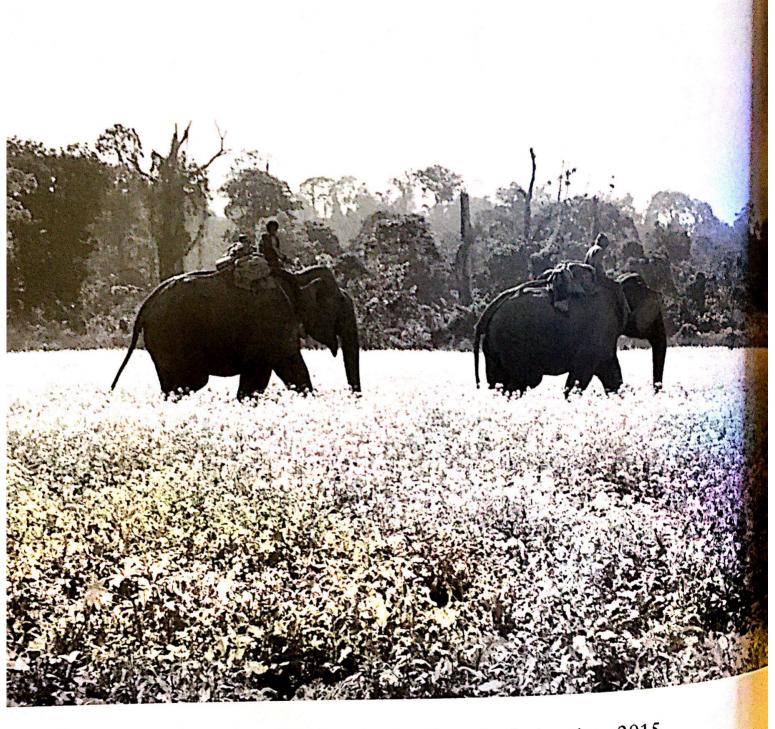
What's most striking when considering in tandem the British and Japanese experiences working with elephants during the war is the degree to which the elephants became objects of intense struggle—not as symbolic "booty" but as a resource of enormous strategic importance. Simply put, elephants were the key to controlling the rain-soaked Burmese uplands between India and China. The 1942 evacuation from Burma into India, the 1944 Japanese invasion of the British Indian province of Manipur, and the eventual Allied reinvasion of Upper Burma—all these operations made extensive use of trained elephants.

Thus, individual elephants might work for different sides over the course of the war. The most famous example is Lin Wang, a Burmese logging elephant seized by a Japanese platoon during the occupation. Chinese Nationalist soldiers captured Lin Wang from the Japanese in 1943 near the Shweli River on the Shan-Yunnan border, along with several other Japanese elephants. The elephants helped the Chinese soldiers cross rivers and hoist large crates onto trucks. When the war ended, the soldiers wanted to march the elephants triumphantly to the Chinese coast, but the route, going through mostly agricultural territory, didn't have any forestland in which the elephants could feed at night. The elephants rode most of the way in trucks and drew visitors in Guangzhou. When the Nationalists withdrew to Taiwan, Lin Wang went with them. He died at the Taipei Zoo in 2003, at the incredible age of eighty-six.<sup>61</sup>

AND WHAT BECAME of Bandoola and Maggie, the principal elephants of Williams's and Russell's memoirs respectively?

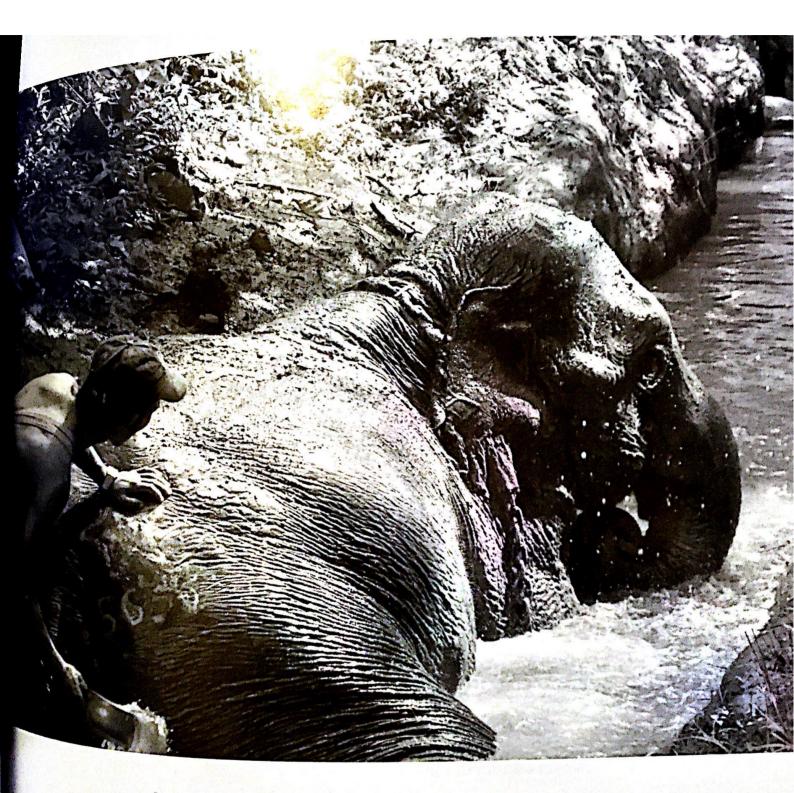
Bandoola's fate was an unhappy one. After the evacuation





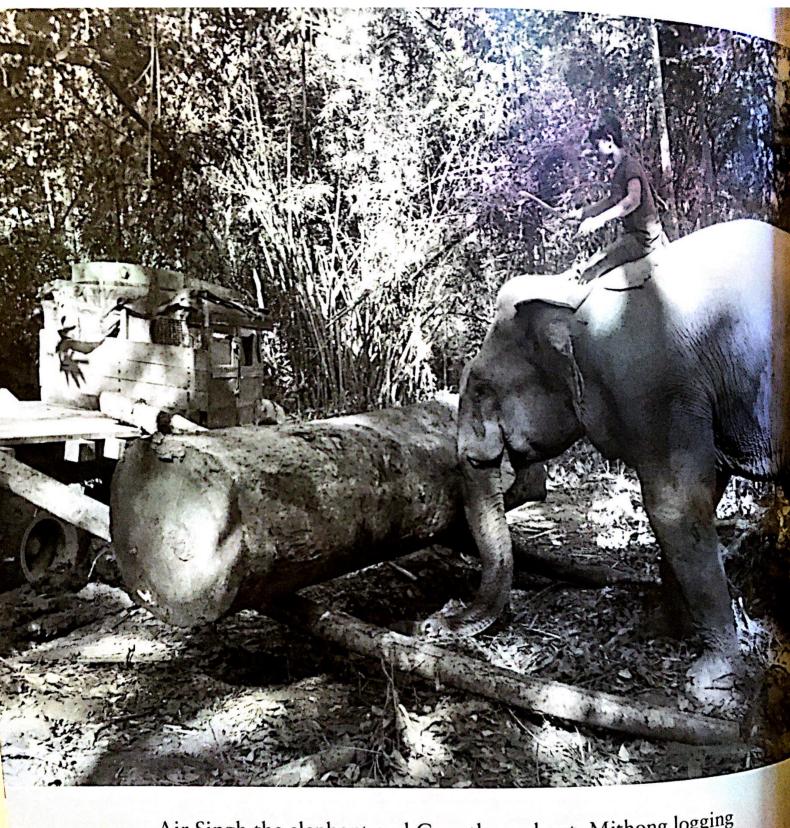
Khoonkie elephants in the Trans-Patkai region, 2015.

Photo by Jacob Shell.



Mahout bathing an elephant at an elephant logging village, central Burma, 2013.

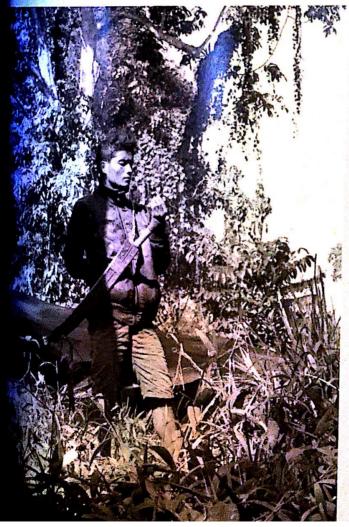
Photo by Jacob Shell.



Air Singh the elephant and Gam the mahout, Mithong logging camp, Lohit Valley, Arunachal Pradesh, India, 2016.

Photo by Jacob Shell.





ABOVE Mother elephant and calf at Mithong logging camp, Lohit Valley, Arunachal Pradesh, India, 2016. Photo by Jacob Shell.

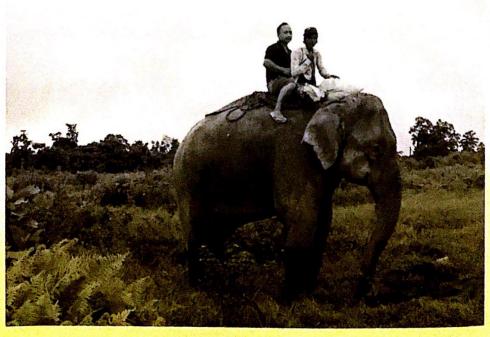
at Mithong logging camp, Lohit Valley, Arunachal Pradesh, India, 2016.

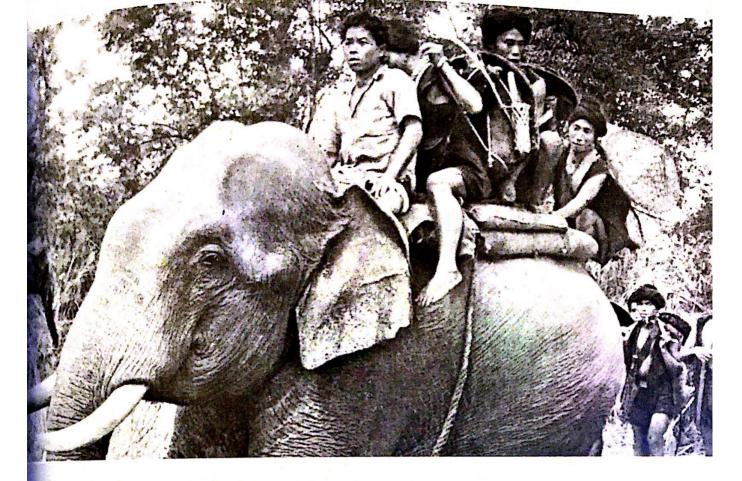
Photo by Jacob Shell.



An Adi
passenger
climbs onto
Burmay-Moti
by way of her
trunk and
ears, Dambuk,
Arunachal
Pradesh, India,
2017. Photos by
Jacob Shell.

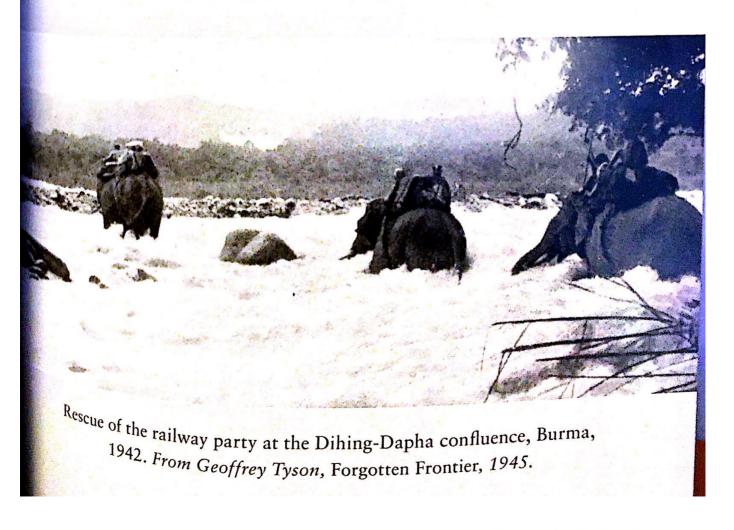


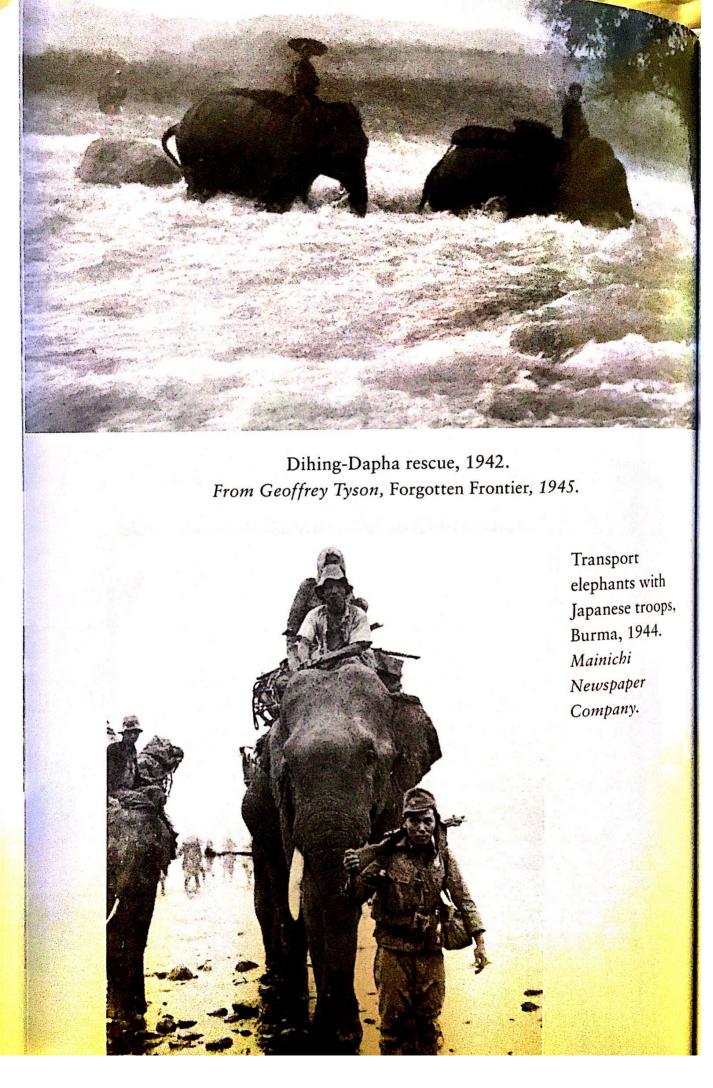




Rungdot the elephant with his mahout, likely a Singpho-Kachin man, carrying a party with food for evacuees, Burma, 1942.

From Geoffrey Tyson, Forgotten Frontier, 1945.





operation at the Shenam Pass and the eventual Allied reinvasion of Burma, Williams had Bandoola and many other elephants sent to the Chindwin Valley to drag timber and do sapper work such as bridge or boat building. One morning in 1945, Williams found Bandoola in the forest—dead. He'd been shot. One tusk was sawed off, the other intact. Enraged, Williams questioned the whole work camp for information and discovered that the elephant had been dead for several days, and that most of the mahouts in the camp knew about it but didn't inform Williams for fear of upsetting him.

At first, Williams assumed that a tribal Chin hunter must have come down from the hills and murdered Bandoola for the ivory. He took several soldiers to the nearest Chin village and placed many people there under arrest, making angry threats about what would happen unless a villager came forward and produced the stolen tusk. But, calming down, Williams reconsidered how strangely his own mahouts back at the camp had acted—especially Po Toke, who had been Bandoola's mahout at the ascent up the elephant stairway at the Shenam Pass and who was now the manager of the sapper camp. Williams later wrote: "I have often wondered whether old Po Toke had become so war-weary as to become slightly deranged in his intellect and whether he had shot Bandoola, rather than leave him to a successor." Williams further wondered whether perhaps the one missing tusk hadn't become a sentimental keepsake for Po Toke—and whether the other one hadn't been left there for Williams. Reflecting on how much the mahouts had already suffered and sacrificed through the war, he decided not to investigate Po Toke and sadly let the matter drop.62 A biographer of Williams adds:

Such was the complicated and often paradoxical relationship between the two men that in the agonizing days after the discovery, Williams was filled with a bitter kind of love for Po

Toke. Here was the man who had taught him everything and shared with him this astonishing creature.<sup>63</sup>

As for Maggie, the elephant who'd ferried so many human beings across the Namyung River by Pangsau Pass: she went with Russell and the others into India as far as a village called Nampong. This was close to the British railhead at Ledo, and the road had become better. The elephants were no longer needed in the journey. There were still many refugees back at Pangsau Pass, and also at Chaukan. The officials at Nampong asked that the refugees leave their elephants behind so the animals could be sent back into the hills to continue the evacuation work. Russell agreed to give Maggie up.

But the next morning, when the Burmese mahout went out to look for Maggie, he found only the remains of a broken chain. Though he trailed her footprints up a hill into the forest, he did not succeed in catching her again. She was gone. "Maggie had faithfully brought us this far," Russell wrote. At the Namyung River, "God provided her to meet our need: at Nampong, her work was finished, and He took her away."

The local elephant fandis in the hills around Nampong might put it a different way: a spirit-mahout had fetched her instead.

THE FATE OF MAGGIE, and its contrast with those of Rung-dot and Bandoola, is instructive for thinking about survival among Asian elephants more generally. On the whole, World War II appears to have been disastrous for the work elephants of Burma. On the eve of the Japanese invasion, the colonial Burmese logging industry calculated a population of roughly ten thousand domestic elephants. More work elephants likely lived in the tribal uplands, untallied by the forestry department. At the war's end, though,

the number had collapsed to fewer than four thousand. Over the next half-century, the number gradually grew again, as elephant lumbering operations became centralized in the post-independence government, under an entity called the Myanmar Timber Enterprise. The forestry department kept careful annual records of the number of elephants belonging to government timber camps or to licensed ethnic minority owners. The department recorded just over six thousand elephants in the 1970s. Since then, the number has slowly shrunk again, to closer to five thousand.

The war's impact on wild elephants, though, is much less clear. It's possible that the violence of the war significantly reduced the wild herds. But a number of details from the narratives given above, and others like them, indicate that something else may have been occurring. Williams, Russell, and Fellowes-Gordon all describe passing through abandoned villages. Areas that during peaceful times had many hunters' and swiddeners' camps became more wilderness-like during wartime. The records from the Chaukan rescue convey a similar landscape: the railway party had hoped to find Lisu villages in the area around the Chaukan Pass but found none. Thus at least in some areas, the war may very well have had the effect of expanding the wild elephants' range into zones normally occupied by humans.

Consider too the scenes of work elephants' crossing paths with wild herds and sometimes absconding with them; or of whole groups of timber elephants' disappearing into the forest; or of Maggie's own disappearance into the jungle beyond Nampong. It's plausible that in the chaos of the war, a great many domesticated elephants went over into the wild, and that some of the herds they joined then migrated into areas beyond the war's reach. Such escapes into the wild might even account for a significant part of the decline in officially tallied work elephant numbers.

This isn't to say that the war was "good" for the elephants overall. Many wild elephants did not escape the violence. Williams recalls that for a period of the war, the fighter pilots of the Royal Air Force were under orders to open fire on any elephants seen in Japanese territory, since they could potentially be work elephants for the enemy. Some pilots, appalled by the order, asked that it be cancelled, but the requests went unheeded.<sup>67</sup> A similar phenomenon would come up decades later during the Vietnam War, when American pilots were similarly ordered to open fire on elephants, seen by the U.S. command as potential transport vehicles for the Vietcong.<sup>68</sup>

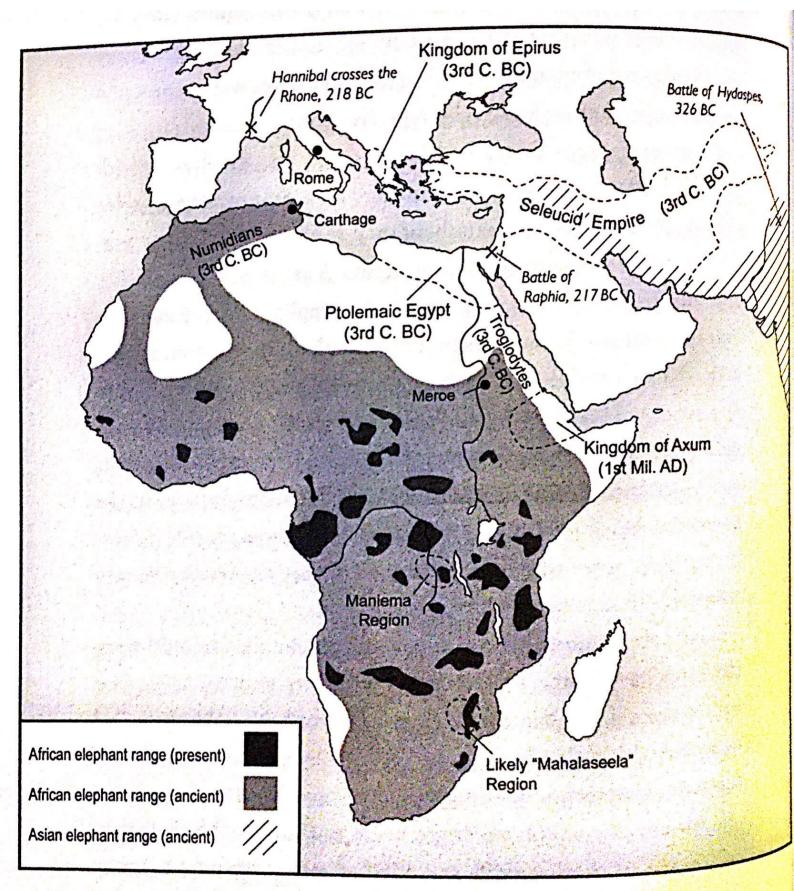
Many other elephants wound up like Bandoola: killed while on the job. The Hkamtis of the Lohit Valley remember two unhappy incidents where Allied troops fired on Hkamti elephant convoys bringing them supplies. Dozens of elephants and men died, and the surviving elephants are remembered for carrying their fallen mahouts through the forest back to their home villages, dozens of miles away. Other elephants wound up like Lin Wang, mobilized away from the Burmese forests to become "compound" elephants in zoos or in tourist camps—with good food, perhaps, but few opportunities to mate. Many wound up more like Rungdot: they went back to the logging and transport work they had done before the war, and for the remainder of their days they had the freedom to forage in the forest at night and to mate—perhaps with wild elephants like Maggie.

What we might consider, from these fragmentary insights into the elephants' collective wartime experience, is that just as Asian elephants have developed a set of everyday work skills that keep them adjacent to the monsoon forest—skills in handling timber and performing transport across muddy forest terrain—they also seem to have skills that are especially useful for certain kinds of human emergency situations. Such skills, if understood and appreciated by

the elephants' human handlers, can increase the odds of work elephants' being moved into settings where they can commingle with wild herds they would not ordinarily encounter. The emergency mobilization of elephants—into forested areas, anyway—can open up new opportunities for species reproduction.

Such emergency situations also provide the elephants with improved odds of escape. But the elephants do not always seize the opportunity. Perhaps this hesitancy is force of habit, or perhaps the elephants sometimes feel a genuine sense of responsibility and loyalty to the humans in plight. An elephant who went over into the wild would more likely be a female, like Maggie, than a male. While a male work elephant at an emergency work site can mate with wild females in the forest and return unburdened each morning to his labors, a pregnant female ought to avoid strenuous work. Better to be pregnant in the forest. Elephant experts in the Burmese logging industry, as well as tribal mahouts in the Trans-Patkai area, agree that female work elephants are likelier to join wild herds than males are.<sup>70</sup>

Thus, at any given time, a nonnegligible number of wild-born elephants have mothers who knew domesticity with humans. At a collective level, elephants have experiences of both wilderness and domesticity that circulate among the broader elephant population through this process of capture and escape. With such patterns and dynamics in mind, we might begin to think of the elephants' emergency evacuation skills as a kind of subtly coevolved trait—developed both through elephants' interactions among each other and through their cooperation with humans in distress.



Map D. Present and ancient ranges of the African elephant (Loxodonta africana). Cartography by Jacob Shell.