

Chinge - Murder, Greed, Dumplings, & Meteorites

by Roy A. Gallant

February 1997

Barely had I completed writing two articles, filed away my slides, and put the final touches on two papers about my 1995 expedition to the Sikhote-Alin meteorite site in the Russian Far East than I found myself once again stuffing my duffel bags with tent, sleeping bag, and some 50 kilos of supplies in preparation for an expedition to Siberia's Chinge (pronounced Ching-geh) meteorite site. Now part of the Russian Federation, the site is in the former Soviet Republic of Tuva, which lies between the Sayan Mountains in the north and the Tannu-Oola Mountains in the south. It is 1,675 meters up in the Tannu-Oola Mountains not more than a spitball away from Outer Mongolia.

This was my third expedition to Siberia the first to Tunguska in 1992, the second to Sikhote-Alin in 1995. Each of those three trips was unique and has enriched my life in many ways. As with the Sikhote-Alin expedition, my colleagues on the Chinge trip were Dr. Valentin Tsvetkov, world's leading authority on both the Sikhote-Alin and Chinge meteorite falls, and Ekaterina Rossovskaya, friend, translator, interpreter, and amateur scientist extraordinaire.

While the scientific aspects of the Chinge iron shower are intriguing in themselves, the background cultural aspects surrounding the event are equally absorbing, for they are rife with gold, greed, politics, dumplings, and violence leading to murder.

The time is around 1900 in Tuva, then a loosely organized region known by the Mongol name Uriankhai. The story's pivotal figure is one Nicholai M. Chernevich, a Russian engineer about whom we know little, except that by the early 1900s he had settled in the region as the first Russian property owner and was buying up small parcels of land. A few other Russians _ merchants, adventurers, and gold miners _ along with their counterparts from neighboring Manchuria also sought their fortune in Uriankhai from time to time. At the turn of the century Uriankhai was a resource-rich plum waiting to be plucked by one of the two competing major powers to the south and north.

During his expeditions in the late 1970s and '80s, Tsvetkov took every opportunity to talk with elderly villagers in and around Bai-Haak who had known Chernevich, or known about him. Bai-Haak, with its one main street and a population of a few hundred mostly of Mongolian descent, is the largest village near the Chinge site. Some remembered this cultured Russian of about age 60 as an imposing figure with shaved head and a large moustache. He was reputedly a kind man with a fondness for children, to whom he gave candies that habitually kept his pockets bulging whenever he visited the village. Legend had it that he knew members of the Czar's family, but a falling out resulted in his being sent into exile in Uriankhai on the southern edge of the Russian Empire. But, unexplainably, he apparently was permitted to visit the capital city of St. Petersburg whenever he wished.

That Chernevich had money cannot be doubted. By 1911 not only was he buying up land but also employing laborers from Bai-Haak to work his newly established gold mines on a 4-kilometer-long segment of the Chinge Creek, a 3½ hour horseback ride from Bai-Haak. The creek is an 11-kilometer-long waterway that feeds a tributary of the mighty Yenisey River.

In addition to digging into the stream bed and washing the gravel and sand rubble for gold, Chernevich's workers also collected many gold nuggets lodged in depressions around boulders and elsewhere in the stream bed. From time to time they also found other heavy "nuggets" of iron sometimes deposited in association with the heavier gold nuggets. The workers usually tossed these unwanted nuggets onto the spoil heaps of discarded rubble, or sometimes they were fashioned into tools.

Each time Chernevich's miners called his attention to an iron fragment, he would put it aside. Before long he had a sizable collection. Early in 1912 he brought 30 of the specimens, which he was convinced were meteorites, to the Czar's Academy of Sciences in St. Petersburg. The masses of the specimens ranged from 85 grams to 20.5 kilograms. True to his training as a mining engineer, he provided Academy scientists with a detailed map showing exactly where each meteorite had been found, a map that later was to prove useful to Tsvetkov. In confirmation of his belief in the origin of his iron "nuggets", Chernevich had named his gold mining area, Meteoritny.

Two specialists went to work on the samples, cutting and examining them in cross section. One was O. O. Backlund, an astronomer, the other a chemist named V. G. Khlopin. Three years passed before they published an article stating that the samples were of iron-nickel composition but "did not reveal any positive signs of belonging to the class of iron meteorites." Their opinion appears to have been based on the octahedrite crystal structure of the then known irons, which didn't match the cross-section crystal pattern of the nickel-rich (16%) Chinge irons.

Despite their negative conclusion, Chernevich's interest in what he stubbornly believed to be meteorites continued, and his collection grew. In September 1915 he again returned to St. Petersburg, this time with a 10-kilogram specimen, the second largest meteorite from the Chinge site.

A year earlier the Russian government had sent an official to Uriankhai to establish the territory as a Russian protectorate, renamed Tannu Tuva. (It was to be reannexed in 1944 and renamed a second time as Tuvinskaya ASSR.) In his initial report home, the official wrote that the only man of culture and education in all of Tannu Tuva was one Mr. Chernevich.

As our story unfolds, the year 1917 takes on triple significance. Two individuals from Finland, identified simply as Sederholm and Haussen, visited the Chinge site and returned home with three meteorites with masses of 988, 883, and 103 grams. They were examined by one G. Pehrman who tentatively identified the specimens as having a cosmic origin.

The year 1917 was notable also for the Revolution which rocked Russia in civil war. Even remote Tannu Tuva felt the shock as control of the little region was passed back and forth between the Red Guard and the White Guard. It was said that a force of only 200 soldiers was enough to keep the region under control. During one raid a group of what Chernevich at first supposed to be Red Army guards burst into his office in the village of Argolik. They were not Red Guards but bandits who set about abusing Chernevich to force him to reveal where his gold was hidden.

At some stage in life there may come a time when a decisive show of character is required. That stage in Chernevich's life had come with his determination not to give the bandits satisfaction. One can only imagine his resolve in defiance of his tormentors. The more insistent they became, the more determined was Chernevich not to relent. Beyond endurance with his resistance, the bandits resorted to torture. Chernevich still refused to yield. In utter desperation the bandits cut off both his ears, bound him, dumped him into a cart, and rattled him off to Bai-Haak. His loss of blood over those jostling kilometers must have weakened him terribly.

In 1979 Tsvetkov was lucky enough to find an elderly villager who as a young man had driven that cart. Yes, he remembered the event well, he told Tsvetkov. How was it possible to forget such a heinous crime? For when the cart was about to pass the cemetery, he was ordered to stop and then watched in horror as the bandits drew their sabers, hacked Chernevich to death, and left him for the dogs.

Following the Revolution, what is now Tuva became an independent state, although with close ties to Russia. Meanwhile the gold mines had continued to be operated and more meteorites continued to surface, several finding their way into museums not only in Tuva but in several Russian cities as well. Although the largest part of the Chinge meteorite collection today is locked up in the Russian Academy of Sciences, a few specimens now can be found in museums in the United States, Britain, and Australia, for example, in addition to a few private collections.

By the 1930s the loose gold became too scarce to be recovered economically by the crude equipment then in use, and mining halted. It wasn't until the early 1990s that gold miners returned, this time with modern equipment that assaulted the area with ecological devastation. During two winter seasons the camp's female cook was left behind at the mines to fend for herself. Her job over those bleak and cold months was to make dumplings and freeze them in the snow in preparation for the miners return in spring.

The 1938 discovery of several Chinge meteorites by the geologist A. L. Dodin helped rekindle interest in the site. One specimen weighed in at 7,580 grams. But it wasn't until the 1960s that the Committee on Meteorites decided to seriously look into the Chinge site. Russian interest in meteorites had been given a boost by the work being done by E. L. Krinov and others at the Sikhote-Alin site midway between Khabarovsk and Vladivostok in the Russian Far East.

In 1963 the Committee on Meteorites sent a three-man expedition to Chinge to search for craters. The large number of fragments recovered up to that time suggested a crater-forming impact, possibly similar to that of Sikhote-Alin. But a thorough search of the surrounding area turned up nothing.

The next expedition sent to Chinge by the Committee was in 1978 and was led by Tsvetkov. In view of the success of metal detectors at Sikhote-Alin, it was decided to use them at Chinge. But some were doubtful about how useful they might be, considering the 3-meter depth of alluvium in the Chinge Creek and the presence of numerous magnetite pebbles. While the alluvium depth would render the metal detectors useless, the magnetite would simply produce spurious signals. Despite advice to keep his expedition small and to bring only a few metal detectors, Tsvetkov mustered a group of 22 researchers and 20 metal detectors.

Chernevich's map of 66 years earlier now came in very useful. It enabled Tsvetkov to survey the creek bed along 3.5 kilometers and locate the exact positions where Chernevich's gold miners had recovered meteorites. The fact that those, and other meteorites recovered before 1978, lay at a depth of from 2.5 to 3 meters within the alluvium indicated that the meteorite fall was an old one. The first day his

team of 22 combed the creek and its shores with no luck. But the second day produced beeping that was to be more significant than they at first realized. One meteorite was discovered in the creek bed at the outlet of a small valley tributary to the creek, "Meteorite Valley" as it became known. The next day four more meteorites were found in the same area.

At this stage Tsvetkov began to wonder if the meteorites had been washed into the Chinge Creek from the small valley tributary. A methodical search of seven other similar valley tributaries in the area revealed nothing. Only Meteorite Valley turned out to be a real beeper, for three return expeditions over the next 10 years produced some 200 meteorites. Those expeditions took place in 1979, 1981, and 1986. It is at this stage that our expedition comes in.

To be *[continued](#)*

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