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Jim Madonna

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Series: Alaska's Lands and Mining interviews

Roger McPherson asked Jim Madonna what kind of people come into his shop. Jim Madonna said he sees people coming up from the lower states thinking that they can come up to Alaska and make a living panning gold. They have to dissuade these people. Other people have had two or three years of experience and know what to expect to find. These are the people that have done their homework, literature searches and field work. So the people who come up from the lower states aren't prepared including clothing. He said many of the people are destitute. Some of the people know how to approach gold mining. It's a broad spectrum. In his store he also has rock and mineral enthusiasts come in. He said there are almost two sets of people in each group --the placer mining group and the mineral enthusiasts group.

Roger McPherson asked what he recommends to the novice recreational gold miner. Madonna said he tells them to pick up a kit which consists of equipment necessary to have an enjoyable time out on a remote stream and not become frustrated. The kit has a gold pan, screen, suction bottle, and a vial for collecting gold. Shovels are also available. He said these are the basic tools. McPherson asked about people that are into suctioning and dredging and what is allowed in Alaska. Madonna said there are certain limitations depending on which kind of land they are on. He said a six inch dredge is the largest dredge you can use in most places. With a permit you can get permission to use larger dredges. You also have the permit from Fish and Game. They want to make certain that you understand about shutting down operations when it is fish spawning time. He said that is the permit that has meaning. Most of the guys who dredge also fish and they understand this.

Roger McPherson asked how the price of gold increasing and what happened in Alaska. Madonna said in 1974 there was a big increase in the price of gold until 1983. There was a big gold rush in the state. He saw people mining but not in an environmentally sound fashion. He is pro-mining and an environmentalist. He believes that our nation would not be able to succeed without mining. He said we have had a lot of freedoms that have been abused, EPA and DEC started looking at mining, and regulations came into play. The regulations put pressure on the mining industry so they had to rethink their position and had to start mining in a more environmentally sensitive fashion. He believes most of them are doing a good job now. He said the honest operations far exceed the unscrupulous people. He said someone was complaining about certain mines and oil companies. Madonna told the person that a lot of mines and oil companies are in mutual funds. It bothers him that people don't realize they are making money from the mining companies. He said in many cases the companies are being pressured by legislation by more difficult mining requirements. He talked about the Pebble Mine and the need to listen to the educated and solid scientific opinions. He said it is an emotional issue battling science.

Roger McPherson asked him about people that use metal detectors. Madonna said sometimes they do. He said there is a metal detector company that has a detector that can be used underwater with headphones to a depth of ten feet. The person using the detector can sweep the gravels on the bed of the stream. The detector will show hot spots and nuggets and the user can dredge that spot. A competent miner will use the tool in combination.

Roger McPherson asked about screening. Madonna said it plays a significant role in the extraction of gold. All the gold extraction devices work more efficiently if the rocks are screened to a small window of size. If you screen everything through a screen door screen you are getting about a minus 20 mesh. You can extract the minus 20 mesh gold much easier from the remaining "gang" material or low specific gravity material and concentrate than you can if you have a whole stack full of aggregate that is variable in size. Twelve mesh can be used for larger materials. The mesh refers to the wires to the inch. There's also eight, four and two mesh. You can extract the different sizes of gold that occur at each level. There is also 30, 50 and 100 mesh. Those windows are very narrow and it is easier to extract gold from that cut of the aggregate than it is the entire span of aggregate.

Roger McPherson asked about popular areas in Alaska for amateurs to mine. Madonna said there are areas that are more favorable such as Hope, the Fortymile area, Central, Circle, past Coldfoot, the Brooks Range, and northwest of McGrath. Fairbanks is a popular area because there are domes in the area which were fed by solution producing granites. There were veins that eroded away and distributed into streams which are placer deposits. There is also gold remaining in the hard rock. There are family size hard rock mines and very large corporation size mines such as Fort Knox. These mines are a mixture of fine gold which requires cyanide treatment to extract and larger gold which can be collected through mechanical methods such as tables and jigs.

Roger McPherson asked how he would advise a newcomer about testing a stream. Madonna said there are certain characteristics of the stream. These are presented in many books. Looking around boulders on the stream bars and inside of the curves of streams. There is a whole series of collection points that a prospector should learn. He said there are books that cover the basics such as where to collect the sediment for panning. Once it has been established that a creek has gold in it then you have to determine what kind of gold it is. He talked about depositional pattern. Flood gold has one characteristic and pastry gold has another characteristic. Flood gold is small enough and fine enough to be brought down in the stream at flood stage and when the flooding is over the load is dropped on the riverbank. It will occur on the inside of the stream which is the low mechanical energy of the stream. When the flood subsides it drops the gold on the river bottom on the inside of the stream. When the next flood comes along the gold is picked up and carried further down the stream. And gold further up the stream is likewise picked up and brought down the stream. When he first started teaching mining extension at UAF he was on the Yukon River. He saw a young toddler panning gold on the banks of the Yukon River. Pastry gold is heavy or has a characteristic round shape and it will work its way down through the gravels and occupies the interfaces of the gravel and bedrock. Occasionally a stream will have shallow gravel to bedrock and it doesn't take much to get down to it. A person can clean out the cracks and crevices and come up with large amounts of gold. He is referring to a quarter to an eighth of an ounce. He talked about size of bedrock in different places. His advice to a new miner would be do not dig more than four inches beneath the surface of a river bottom. Roger McPherson asked if you can capture that flood gold by panning. Madonna said absolutely. Sometimes the best flood gold is that which is flat. It hydrofoils itself down the stream. Air or sphere shape will be factors which control large amounts of

flood gold. He called placer gold mining the poor man's mining. He said that activity is controlled by the price of gold. He said when it went up there was a frenzy of activity. When it dropped the interest in gold mining dropped off. The serious miners remained. About three or four years ago gold started climbing again and more mines were being worked. He talked about his business. He said there will always be the recreational gold miners and the hunters who carry a gold pan with them. He said he is there to serve these people and enjoys helping them. He has witnessed the price of gold going up and down and his business doing the same. He understands the cycling effect.