

Chapter 3- Where to Look for Gold

Gold is nineteen times its equal volume of water weight and placer type gold will migrate to the bottom of streams and rivers. By way of comparison, Gold has a specific gravity of a little over nineteen and lead is eleven. You're familiar with lead and how heavy it feels, well gold is almost twice as heavy as lead. OK, so now here we are at the creek or stream and where do I look for gold?

As a beginner, you're going to be working the shore line so look for a bend in the stream and on the inside of the bend is where you want to start prospecting or looking for what the ol'timers refer to as color(small granules of gold usually the size of grains of salt or smaller) The inside or narrow bend of the stream is the low water pressure side and this is where gold will settle to the bottom. In flood stage , Of Course; the river will be running high up on the bank and will drop its gold content there.

Ok , I'm standing here on the shore inside bend of the stream and there's hundreds of feet of ground all around me .Where do I dig my pan full of dirt? Answer; any where there is a large rock or slab you'll notice a deposit of small gravel on the down stream side of this obstruction to water flow. That deposit downstream is a prime area to start looking. Fill your pan with the material, screening out or removing all of the larger gravel by hand. Proceed to "pan out " the contents as you have learned.

At the very least, you will find in the bottom of your pan a deposit of black sand. This is magnetite or hematite and generally has a specific gravity around five . It's nowhere near as heavy as gold, but it is heavier than any other sand or fine rock material you're likely to find. Gold and black sand will run together. Frequently you will find gold mixed with the black sand. On today's rivers and streams you'll likely encounter hardware such as fishing weights , lead buckshots and various pieces of iron and nails. Don't be discouraged with

hardware . It simply means that you have made a good choice. Gold , Hardware and black sand will usually be found together. Gold will be at the bottom!

OK, so we've ran our first prospecting test and "Eureka!" there's a speck of gold in my pan! This ain't exactly the fortune I've been



lookin for or that which I've been led to believe could make me rich overnight! No! That's true, and I'm not one to tell you that you will ever find that Bonanza we all dream about. But it is also true that prospectors before us have found the Big Bonanza and that others are still out there undiscovered. The following illustrations include the use of some Gold Mining equipment which will be explained in later Chapters. These photos are primarily intended to illustrate various locations where gold can be found.



We'll begin here with this no brainer. Behind me is the exposed side wall of an ancient gold bearing river. Prospecting isn't necessary, hundreds of folks have taken gold from this site and many tunnels were dug in on the bedrock bottom of this river to get the gold. Most ancient rivers ran north to south with variations caused by mountains etc. I think based on the direction of travel shown by unearthed large flat rocks that lean in the downriver direction of travel. In this particular location the flow was south east. That becomes important when you get on bedrock because you want to work up and down the channel once you find a paystreak.



This is the old Caesar mine tunnel. I explored some of it years ago and was describing it , when a lady asked me “How deep is it into the mountain?” I told her it was at least 12 seconds deep. She replied,

“ Whatta you mean, that’s crazy! How can you measure a tunnel like that?” I told her, “ I measured it that way because that’s how long it took me to run outta there when a rock fell from the sidewall.”

Once exposed the bedrock has riffles and fissures that act like riffles in a sluice box. Yes , that’s where I’ve found the most gold at this site and it’s still a very good producer if you don’t try digging under a rock. A headache the size of some of these boys is not recommended. I’m showing this because a lot of ancient channels have not been discovered and opened. You might run into part of one and try prospecting it. Below is shown the bed rock in this area. Many gold catchers!!



Look at that compacted material right on bedrock. Pretty fascinating for a gold miner. This is the kind of stuff you’re looking for and it’s right in line with water flow.

Getting into today’s river. There are many volumes written describing gold flow and river deposits ,whereas ; gold is normally deposited on the inside bend of a river. This is a true statement and

many great finds are located in this manner but , remember we don't have all summer to prospect and exploit that inside bend looking for a good deposit. There are additional physical features that we must examine to try and narrow our search. Large outcrops of ledges or bedrock formations and large boulders extending into or residing in the waterway will create a low pressure point downstream and provide a perfect eddy pool where values will drop out of a heavy water flow and accumulate for thousands of years waiting for some gold seeker to find.

Whenever possible,. I recommend visiting a potential working area on the river during high water run off in the winter or spring. Take a few photos of the area and study these to determine the locations of eddy pools and drop zones. I have done exactly that and located a very rich area that has produced virtually pounds of gold and exceptional nuggets for over fifty miners during the past eight years. This particular area is still producing every year and it's unknown just how far down river the deposit will extend. My photos indicate that the eddy pools run another 20 yards ,or so. It will be of interest to see where the end of this drop zone is , or if it extends into an ancient zone not matched by today's river. Please Note: Some of this Chapter's narrative overlaps system descriptive Chapters. This is necessary to illustrate the particular subject matter.



Looking upstream, this deposit of river worn rocks indicates a likely drop zone when the flooded river covered this area. Why did these boulders pile up here? We found that a shallow bedrock shelf stopped these boulders providing a perfect sheltered drop area for gold. This would be similar to a riffle in your sluice box. If gold came through this area, it would come to rest behind these boulders possibly from where I'm taking the photo up to and under the deposit. Look to the background in the right corner there's a bluff there that generated a drop zone we're still working on and check out the color of the sand here at our feet, it's dark gray indicating an abundance of black sand mix. How many more clues do you need as to where the most likely places are to start digging?



This photo I'm including with some regret, because I know that gold lies this side of that sharp bluff and I'll never be able to mine it. Time (age) and physical ability are against me. Just down stream of this outcrop, I recovered 3 ounces of small gold and my last mining effort further down stream at a sharp bluff just like this one produced over 5 ounces Yeah, it's a lotta work getting the overburden moved and will require a good effort of ten days or more, but what's a vacation for? The river here is turning around that bluff and high water blasting through this canyon will carry thousands of flakes around that sharp corner and drop them right there against that steep bluff. Look at that big rock pile against the bank. They're there because it's a low pressure point and there will be gold right there with those big ol'boulders Now you understand why I hate to look at this reminder of the pleasure and satisfaction involved. It can't be duplicated, if you're a true Gold Miner.

I follow my own advice and try to use a very objective eye when looking at the river . Always try to imagine flood stage because most of your gold moves at that time; and where do I look for a low pressure area that occurs at that time. Many of my friends and associates have given me a funny look when I said I'd dig over there when it appears to be the wrong side of the river. By the way, I never tell anyone where to dig, I generally recommend based on experience and judgment. To tell is to accept blame for no show and frequently that no show is due to lack of effort ,not lack of gold.

Then there's another tough call in an area where the river runs slap dab head on into a sheer wall then turns say to the left. What do you make of that ,Mr. Gold Miner Tom? Well, put yourself theoretically in a large pipe filling with water and what happens when it fills up, the filling unit reflects a back pressure which effectively stops the incoming water creating a low pressure area . In a river bed that feeds directly into a wall the same back pressure will occur, a low pressure point will develop and that's where the gold will drop out. Here's a photo of just such an area and guess where the gold miners have been pulling out multiple ounces of gold the last 10 or more years. You guessed it; right out here in the front part of this photo where the reflected pressure from the bluff butts up against the onrushing flood waters creating a veritable dead pressure zone. "Hello Gold!"



Let's take a look at another area which has the same general topography. The river in this instance hits another bluff which reflects back pressure up to where I'm standing, This particular area always produces gold for any dredger willing to give it a try. It's location and the difficulty involved sorta discourages most folks, but to this day no one has taken it down to bedrock. John and Judy of Scottsdale Az. picked up ½ oz here basically from the shallow overburden, and I have personally taken 3 dwt from the side wall just crevicing. Does that

interest anyone?



One more area ,I want to cover because it represents another situation. This photo illustrates a choke location where the river is choked down and then drops into a wide flat pool. This area is known as jump rock crossing and the pools immediately down river always produce gold and a healthy vacation for dredgers. All the gold that comes down the north fork has to pass through Jump Rock and there immediately below is a low pressure drop zone. This would seem to be a great attraction on it's own but, looking a little further down river we meet the confluence of the South Fork and the North Fork. Bang!! The North runs slap dab into the South at right angles, both in flood stage and here comes that reflected back pressure generating a beautiful low pressure drop zone in all those nice pools below Jump Rock. Yes many dredgers have done well in this area, but most had little or no rock moving equipment.



Choke point at Jump Rock Crossing-with settling pond below. A very productive area for Dredgers



Under this huge piece of float was bed rock , gravel covered, but full of grind holes, some that produced recent deposits during flood water. Not nice to clean, but the gold was.



There were Flakes and fines in the crevice leading to the grind hole. Wish I had what's been ground up to powder in that hole. When you get in a hot drop zone, check every crevice. Most will show some gold. The below photo is gold that came from this location.



My best advice is to look at the sidewalls of a stream bed and try to visualize the water running 30 feet deep.



The down stream side of the large boulders on the right should produce some gold. There's a sand and gravel deposit showing just up stream indicating a drop zone.



Down stream of the sharp outcrops showing across river produced over five ounces for me personally. Notice the river curves to the left and the inside bend is where most gold is found.

Now that we've covered these clues, look at the walls of the river gorge or canyon you're gonna be working in and notice the outcrops and bends in the sidewalls that haven't seen water in thousands of years. Should you be in a relatively open basin or wide

valley, there's a good chance you are in tough—a not too good producing area. The dropping out and heavy characteristics of gold have not changed since the formation of our planet, so let's follow what we know and look for deposit areas downstream of these high sidewalls similar to those found on our present day streams. You will have to dig a little deeper because time, decaying vegetation, and weather conditions have buried our gold.

One thing you can be sure of, if gold came down this river channel that you are standing in a thousand years ago, it fell and dropped out on those sidewalls in exactly the same manner as today. In addition, we are fortunate, to some extent; in that hardware, bullets and fishing weights along with mercury lost during the Gold Rush years has found a drop out or resting place in those same areas where gold is found. During all of my mining efforts, whether it be high banking or dredging; I'm always looking for those extra little indicators that tattle tale on the area and its potential for producing gold.

Note; if you find hardware, nails, cast iron pieces (from old miners cook stoves), and lead in the over burden (that deposit of cobbles, sand and gravel or dirt before reaching bedrock); it's a positive indicator of two things.



Number one, it's a good drop zone where gold would also drop out and number two; the presence of hardware etc. in the over burden is an excellent indicator that the area has never been opened to bedrock. Conversely, when you get to bedrock and find hardware; sorry about that, but quite likely it's been visited before and the likelihood of a good gold find is minimal.



Here is another indicator of a possible gold drop zone. Swirling water and rock grinding make these swirl holes and it's been my experience that gold , especially large gold , can be found in these areas. We recovered two large nuggets from under a large boulder that sported a nice grind hole on it's surface.

Moving right along, we're going to deal with another peculiarity I discovered during my earlier gold mining days. There was an area down river of an abutment on an Island that captured my attention because it was covered with round rocks. These were all in that 5 to 10 inch size and I asked the local Gold Mining Sage about this strange deposit. There were literally hundreds of them covering the shore line for a significant 100 feet or more. He related to me the fact that he believed the ol'timer's (49er's) had classified them and placed them there. Well, there's nothing in the history books to indicate the miner's were of a mind to waste their time doing something like that; so I did some exploratory work in that area and formed my own conclusions.

This is just my own opinion based on what I've seen and experienced on this river covering the last 25 years. A deposit mostly of round rocks represents a natural drop zone. My investigation found some hardware mingled in with the rocks, which leads one to believe that this is a low pressure drop zone. Round rocks offer the most weight versus low opposition to water flow; in other words, round rocks act like gold nuggets versus flakes of gold, they tend to drop out earlier while flakes with more surface area are carried on. I have not

had the time or opportunity to verify gold deposited on that shore line but, I've got a full two ounce bottle, I'm willing to bet on it. Look at that piece of hardware in the fore ground. This bar is loaded with the same.



Well, I've covered a few of the pointers I wanted to pass along as I have seen evidence of it's truthfulness. I feel that most miner's know of similar area's on many other rivers and I hope that these illustrations are beneficial.

I'm gonna jump ahead here a little bit and show you an operation using a Wiss Bangr gold gittin device that's fully illustrated and described in Chapter 6. The reason I'm going here is because it illustrates a perfect location for a good deposit and fits Where to find Gold. It was September 1985 and I was mining near the forks in the river where these photo's were taken I was using my recently developed Wiss Bangr and finding a little gold. OK. So what got me interested in this particular location? I just had to check it out. The summer season was almost over and I needed a last shot at gittin the gold.



I and friends were hiking to a good fishing hole and I took these pictures from high up on the trail. Studying them later ,it struck me that I was looking at a natural sluice box right in the bend of this gold bearing river. Those rock formations to the left would be underwater during flood runoff in the winter and spring. They would act like riffles in a sluice box. Some were actually seams of hard rock running at right angles to the river. I had to investigate the possibilities from ground level. It was a daunting challenge just to prospect the area.

In a likely ledge protected area, I found a “V” shaped tail of gravel and it didn’t strike me at the time as a good prospect unless one needed a lotta exercise moving rocks. I got lucky and found a couple of grain of rice sized small nuggets in my first clean up. Now I’m hooked! I worked this gravel tail upstream to the ledge protection which permitted it’s formation finding a few more small pieces. Not a Eureka yet, but underneath that ledge protection is a large seam of marble hard rock running across river at right angles to the water flow and set up just like a riffle in this huge sluice box. Now Mister Tom is really getting excited! The following pictures fully illustrate why any gold miner would feel that way.



Working in that “V” tailing . Fran’s in the hole ahead of me.



Just getting started diggin by that hard rock seam. That huge slab laying up behind me hung up on the hard rock seam I’m working and created a perfect low pressure spot .



Things starting to cook, we're nearing Bed rock in that hole and the gold is showing better in every clean up.



Not a lotta room, but Gold Fever compensates for the sore muscles and cramped working conditions.



Hey Nice going! That's a piece of gold down there!



Getting close to the bottom



There it is!

Pretty exciting when you know that any moment you could uncover a beautiful nugget. Kinda makes it all worthwhile; not the value in money, but in satisfaction and wonderful memories. How does it feel to know that you're the first human to put a hand on this gold since the formation of earth. Yeah, I guess that makes it so very special, at least for me it does. Note; that red on my suction nozzle is a red handkerchief to keep a spray leak outta my eyes. When gold is showing, a lotta things just have to wait.





Picking up the nuggets. Unforgettable memories.



The header on our sluice box. You gotta love the picture.



Hey! It's Eureka! Time 22 dwt in that one small depression . We opened up that bedrock seam in both directions getting more gold every day.



Nearly Four Ounces !!! total. It's easy to see why location is the most important part of Gold Mining. Hard work , but a

wonderful find for a couple of new gold miners. That island of bedrock could easily produce that or more within fifty feet of where I worked. The two biggest pieces weighed over 2 .5 dwt each. Combined weight of all that first day was 22 plus pennyweight. One and one tenth ounces. At today's price that's a pretty good afternoons payday.

Well we've done a great job or maybe just got lucky so now I want to cover another way to locate a possible gold drop area in the river or shoreline.

A pay streak for gold could be defined as a concentration of mineral values which form a rich line of deposit or occurrence in a river bed or hard rock lode . Gold miners of every class from prospectors to Corporation Owners are forever on the look out for any lead to that hot pay streak for gold. When it comes to Placer deposits in the rivers of California, the dredger is your best source of information . He has tested the waters, so to speak ; with his hard work and hours of examining the deposits on many square yards of bedrock. Will he willingly disclose his secrets of a stream bed to anyone at large seeking to find a Bonanza Gold Deposit? I reckon not !

So, let's take a look at a new river on our own. We know nothing of it's flow or deposit area's and most gold miner's working the same area are reluctant to divulge critical information as to hot spots etc. We'll say that in our first inspection there is no physical indicator as to inside bends or large abutments of bedrock or large boulders showing on the Claim where we were permitted to work.. It's a flat straight running river area that doesn't look too promising and even the topographical maps don't help a lot . There's really no visible indicator to give us a clue to where we should start dredging, but we know from the success of dredger's preceding us that this is a good gold bearing river. Do we just take pot luck and jump in hoping to hit a hot spot? NO! That type of gold mining is like hitting the Lotto, there are still a number of ways to find a paying area without wasting all of your vacation time. In the photo below there are a number of formations, but as we were told they had all been hit pretty hard over the past few years and our snorkeling indicated they were clean.



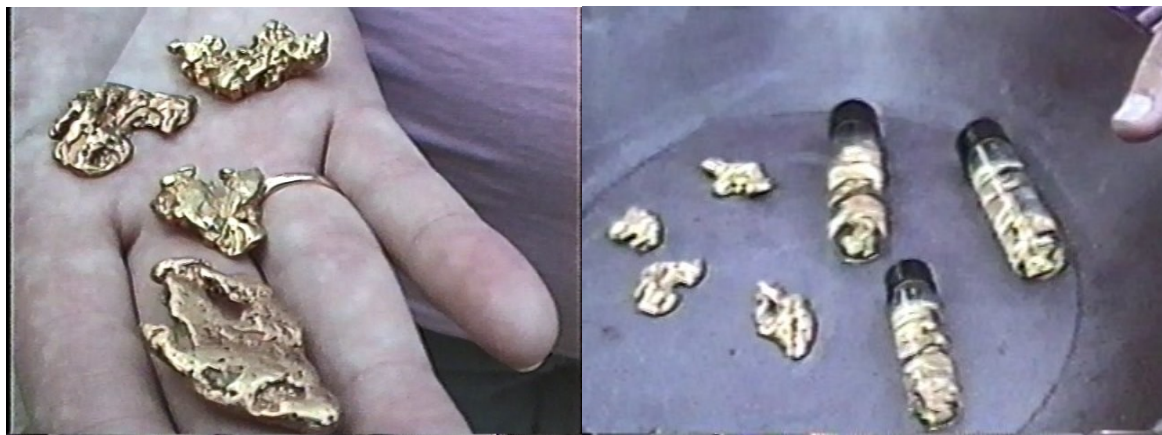
My wife, Fran and I have been at this game for almost thirty years and one thing I've learned that always points to a good drop zone is the presence of hardware. There's none showing on the river banks or in the river bed. We always have a look see with snorkeling equipment and having still not found any pointers, I'll just have to resort to my "Bag of Tricks". !

Some years ago, I picked up a hand held pick up magnet for getting nails out of my dirt driveway. This little tool is about two and a half feet long and has a release trigger in the handle which allows picking up metal junk and easily dropping in a container. So then, the answer to this river riddle is pretty simple. We take the magnetic pick up tool and scan segments in the river to determine the best hardware drop zones(a concentration of black sand and small metal objects etc.) and start our operation there. Gold and hardware always stay pretty close together and though you may not hit that big one , you have definitely given yourself the best opportunity to win. I wish

there was some way I could use this magnet to give me a winner at the race track!

Another indicator would be through the use of an underwater metal detector , but then this magnet is much more economical and picks up all of the very small pieces and even black sand which will give you a good indicator of heavy drop areas. It will really let you know when it grabs something big.

On one occasion dredging that Fran and I used to find a pay streak. We cut a channel all the way across the upriver point of an island looking for black sand, garnet stones, and hardware. In a two foot wide area about a third of the way across river, there was a small distribution of the hardware etc. that we were looking for. Our Magnet had worked it's wonders. We were very successful in this particular effort, but it cost us a week of vacation time to cut the channel. The pay streak produced an 8.5dwt. , a 4.2dwt and two other nuggets along with ounces of smaller gold shown by other dredgers.



I reckon we don't have anything to complain about and the dredgers following after us enjoyed some really nice days also. Jack Muller and his two sons collected over a half ounce and Carol and Jackie Mallo of Volcano Ca. took home well over an ounce including a beautiful half ounce pendant nugget. All of this gold coming from



that pay streak heading into that little island. This had been an exceptional find and brought success to a half dozen other miners.

Like all deposits , it came to an end and folk's were out looking for other hot spots. Fran and I moved up river to a new promising bend in the river area. This portion of the river had all of the necessary drop zone text book earmarks. We went back to our conventional prospecting efforts(looking for black sand, hardware etc,) and had located an area full of decomposed granite boulders where we found some small gold in the over burden ,but none on bedrock. I was shallow dredging in about one foot of water and came upon a trough between granite boulders . The content of this trough was highly mineralized material and very exciting to work. I could almost smell the gold! Wrong!! There was no evidence of gold in that mineralized material, however; there laying on the very top of this material was a beautiful little rose quartz mixed nugget!!

It turned out , that there was plenty of gold in this area but, it was high up on the bank requiring a ton of heavy work High Banking to get the color. Unfortunately, Fran and I had to pull our equipment and leave for a few weeks, so I left an empty coke can crushed between the rocks where I'd found that little nugget, Normally, I don't leave trash anywhere ; but this was a rare and necessary exception. I called Neil Dixon and told him where I'd found that nugget and also to look for the coke can when he got to camp. He found it all right and to this day that area is known as the Dixon Diggings where many ounces of gold have been removed and it's still producing. Folks always take

away a good haul from this area and they're proud to show their bottles.



These were successful efforts , but now on the Feather River, it's a new ball game and I've got my handy magnet busy trying to map out a likely drop zone. The problems that I ran into were frustrating. The shore line was full of black sand and hot rocks that were filled with magnetite. .



This dandy magnet of mine was loaded every few feet with a heavy concentration of black sand and hot gravel(rocks)! This meant ,of course that my metal detector was in for a rough trip if I went nugget hunting, so; I confined my gold mining to High Banking and dredging. Both efforts were successful when I used the hand magnet to pinpoint hot drop areas. A heavy showing of black sand and hardware always pointed the way to a little (sometimes not so little) gold. One particular hot drop spot on the shore produced a nice little finger picker with my first test pan of material. The future looks really good for High Banking in this area.

