



Diablo Diggins

Monthly Newsletter of the Contra Costa Mineral & Gem Society

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Club Details

General Meeting

Monday, July 10th 6:30 PM Endeavor Hall Hoyer Hall Clayton, CA. 6pm.

Speaker Gary Collier, a founding member of the Mount Diablo Metal Detectors club will on us for an exciting talk and demonstration on the art of metal detecting. A former Pac Bell employee, Gary got his first metal detector in 1973. He went on to work for Whites Metal Detectors for many years. In 1979 he cofounded the Mount Diablo Metal Detectors group, of which he is still an active member and officer.

Gary had metal detected in Europe and Hawaii and across most of the western United States. He has been hired to find everything from lost wedding rings, and machine parts to hubcaps lost in the ivy. He has found everything from bottle caps to Spanish coins to valuable jewelry.

Gary will give us an expansive view of the metal detecting hobby, show us some of his finds and demonstrate several types of metal detectors. We wish Gary happy hunting and hope some of you catch the bug too! I know I did.

SnacksThose asked to bring snacks are....

Pat Howard, Lee Jacoby, Dave and Kim Kleesattel, Cheryl Morgan, Therese and Harry Nichandros, Karen Oliver, Chuck Olson, Betty and Dick Pankey, and Barbara Paul.

Remember.... Everyone is invited, bring a neighbor



Our Club is the Winners

As many of you know some of our members have been competing with their cases. Kudos to Donna Albrecht who won Best of Show, Novices, Mike Hopkins who also placed very high and to Kelly Plumb who shine brightly at the Lodi Federation Show. Mike placed best of Show at the Alameda County Fair and volunteered at the Rock painting demonstration. He brought show flyers and meeting invitations to pass out at the fair. We are a club of winners.

Board and Show Meeting

In the wake of these successes we will hold a combined Board meeting July 6th at 3:P.M at Mountain Mikes in Concord, in the same parking lot as the Concord Centre. Please come if you can and let us make our show as great as it can be.

Rock Hounding Metal

Metal is a just a rock often that has been modified for a specific use. Metal detecting is just another way to hunt rocks with a touch of modern technology. Where ever humans have lived, they have left remnants of metal that can give hints as to what life was like for them. Metal is just rock with human history.

The first step of metal detecting is buying and learning to use a metal detector. A quick o line search shows that that they are priced from \$50 to \$2000. Shop wisely by researching and knowing what you want.

https://www.popularmechanics.com/technology/gear/a32968255/best-metal-detectors/?utm_source=google&utm_medium=cpc&utm_campaign=arb_ga_pop_d_bm_c omm_org_us_a32968255&gclid=Cj0KCQjwT0-kBhDIARIsAL6Lorf_etV0xcgJCO6sEVh75jE7EafI2Xu_mkIFCPAQWn4rKvVBMtLTbzYaAsk6EALw_wcB

There are multiple metal detectors on the market, and each can be used for a different purpose. When choosing the best metal detector for you, it's important to consider what you will be using it for. If you're looking to find large objects, then you will need a different detector than someone who is coin shooting or looking for smaller objects like an old coin.

There are two main types of metal detectors: Very-Low Frequency (VLF), and Pulse Induction(PI) metal detectors.

- A VLF detector is used to find a variety of objects, including coins, copper wire, relics, jewelry, and most commonly, gold. They use a low frequency to find objects buried underground.
- On the other hand, a PI metal detector detects buried metals by reflecting a pulse of energy. For best results, use this detector in areas with high mineral content in the soil, as it can be fooled by objects that contain metal but are not good conductors of electricity.

Gold metal detectors, for example, are made to find gold nuggets and other precious metals. The frequency of these gold prospecting detectors is set to a higher range so that they can pick up on these small pieces of valuable metals. Coin detectors, on the other hand, are made to find coins and other treasures buried underground. These detectors have a frequency that is specifically calibrated to find smaller objects. While prospecting for gold, you might enjoy trying your hand at gold panning. Aside from hobby models, there are also industrial models used for locating a hidden metal contaminant or two in foods.

Learn to use your new toy

The second step seems obvious, learning how to use your detector. There are numerous articles and videos, on line demonstrating various techniques. Your new detector may come with it's own video as well. But there is more then technique, there is local law.

Just as you are learning how to use your new metal detector, a landowner approaches on his four wheeler and yells, "Hey, get off my property with that thing!". That landowner maybe backing up his demand with weaponry. You quickly realize that there must be some rules about where you can and cannot use your metal detector. Learning how to use your detector means learning the rules too.

Do Your Research

Before heading out on your first metal-detecting adventure, it's important to do some research on the topic. Knowing where to look, what laws apply to metal detecting, and what type of metal detector to use can make all the difference. The private property owner makes it crystal clear that it's important to familiarize yourself with the local laws and regulations on metal detecting. Private property always requires permission. Public land,

(parks, BLM, Roads) have specific rules on where you can and cannot detect, so be sure to know them before heading out. Some public lands may require you to fill out a metal detector permit application before doing any detecting.

When hunting for treasure, it's important to choose an area that is likely to have something buried underground. The more people the better. This article includes a list of popular spots.

Metal Detecting Technique

Your technique is key when metal detecting. Soil and your specific detector determine the best technique. Knowing multiple techniques and trial and error are your best tools to determine this in a specific situation.

In general, to use a metal detector:

- Stand in a comfortable position
- The stem should be adjusted so that the transmitter coil and receiver coil hover just above the ground when you hold the device.
- Swipe the machine from side to side while walking slowly.
- Raise the search coils during a sweep to produce false readings.
- Continue sweeping in smaller paths and then a circular motion to isolate the area after a target ID is revealed by a beep.

Be a gold digger



The most common technique is to slowly sweep the detector back and forth across the ground. The detector's magnetic field will cause any metal objects in the ground to create an electric current. When you hear an alarm or tone from the detector, stop and take a closer look at the area. You may have found something metal!

Another technique is to use a discrimination setting on your detector. This will help you to weed out unwanted metals, like aluminum cans or foil, from the objects you're looking for.

When digging for buried treasure, use a small shovel or spade to carefully uncover the object. Be sure not to damage it or the roots of any plants in the process! If you are detecting on the beach, consider a beach scoop for recovering your targets.

Know the Safety and Security Rules When Detecting

Responsible metal detecting is the most important part of participating in the hobby. The metal detectorist code of conduct is basic safety and etiquette for anyone using a metal detector. Here is a metal detecting tip or two to remember:

- **Respect private property** - **always** ask permission before entering someone's land.
- **Be aware of your surroundings** - avoid trespassing and being in areas you're not supposed to be. Alert yourself to potential dangers such as animals, other people, or sharp changes in terrain (like a cliff or a hill) and stay aware while detecting. Do not walk into the side of a barn because you are looking down.
- **Leave the area as you found it** - don't disturb the ground or vegetation.
- **Be aware of metal detectors laws in your area** - make sure you know where you can and cannot detect before heading out.

Remember that when you're out with your metal detector, you're an ambassador for our hobby. There is no point in tarnishing the reputation of our pastime, and we shouldn't pass up the chance to educate anyone who asks about it. Do not trespass on private property. Before going onto any land, ensure that you have permission to remove the metal object you have uncovered. One hint from my family that has worked is to bring a gift to the landowner when asking for permission when rockhounding or metal detecting. Another suggestion is that you show them what you find, because it may be part of their history.

Understand Your Equipment

Search Detection Mode

Metal detectors have a discriminate mode and an all metal mode. When using the discriminate mode, junk targets will be removed. The all metal mode is used to pinpoint the

exact location of your targets. More advanced metal detectors include a notch filter discriminator to selectively choose which targets to filter out. More basic metal detectors include a simple discrimination mode that will just filter out a broad range of targets. Preset search modes at low frequencies will penetrate the ground deeper for relics and low conductivity targets like iron. Higher frequency modes will not go as deep but are best for finding high conductivity targets like silver and copper. The all metal mode is also commonly referred to as a non-discriminate mode.

Ground Balance

Most mid and upper-level hand-held metal detectors include a ground balance feature. In areas with mineralized soil, it is important to ground balance before metal detecting. A properly ground balanced metal detector will be able to filter out ground minerals so that your handheld metal detector does not give false signals. The ground balance procedure can be automatic or manual, depending on the brand and model you own. Saltwater beaches, areas with very mineralized soil, and gold-bearing areas require ground balancing. This will reduce false ground signals from ruining your day. Proper balance will help you avoid ground mineralization interference.

Sensitivity Setting

Once you have set up your detector's sensitivity adjustment, you can begin metal detecting. When you increase the sensitivity adjustment, the metal detector will become more sensitive to smaller targets. You will also be able to locate deeper targets. If you decrease your sensitivity, you will not be able to locate targets as deeply or as small. If your sensitivity is too high, you will pick up interference from other metal detectors operating at the same frequency or devices nearby. Other devices such as radio towers, electrical lines, dog fences, etc., may also cause issues. With your sensitivity properly set, you will be able to find the valuable targets you are searching for even if they produce weak signals.



Learn the Metal Detector Sweep Technique

Practice sweeping your metal detectors search coil over an area where no object should be detected. Once you have identified a clear or metal free area, you are ready to start. You can now ground balance your detector in this area. Using a correct swing technique will help you find more desirable metals no matter your location. Whether you are hunting a wide open field, flat ground, or a baseball field, the proper swing is important.

Use Different Sweep Techniques

First, practice sweeping from left-to-right, right-to-left, back-and-forth, forward-and-backward, and in circular motions. Each of these techniques will be important in your searches as you begin finding targets and pinpointing them

Where????

Metal detecting is most successful in places people have been at to lose the coins, jewelry, or treasures you are seeking. Parks, schools, old buildings all are potential sources. Most hobbyists recommend journaling your location and the finds you make for future reference.

Coins

As you are searching for coins, keep your coil on the ground and sweep slowly from left to right. Be sure that you are not lifting your coil off the ground at the end of each sweep. If you find yourself doing this you are trying to cover too much ground. Pick a narrow path and stay focused. Once you have located your coin, hit the pinpoint button. Now be sure to make an

x with your search coil and criss-cross the target, and listen for the loudest signal. That is the center of your target.

Jewelry

Similar to searching for coins, when searching for Jewelry, you will want to follow a methodical path. Be careful when digging for jewelry, as you will not want to damage it. Gold and precious metal finds can be elusive. You may need to scrub your coil close to the ground as you are sweeping. Many times you might hear a very faint sound. Keep after it if it is a repeatable sound as you sweep from side to side.

Treasures

A large hidden treasure can be made of gold, silver, and other types of metal objects, including precious metals buried in a vessel. For example, some common types of containers that a treasure would be buried in include a treasure chest can or a jar filled with coins. Deep treasure detectors can locate any type of metallic object and will each have unique sweep patterns and speeds. Treasure hunters will want to follow the directions that came with your device.



Be Patient

If you are looking for gold, silver, or other precious metals or relics, then you should be patient while metal detecting. It takes time to find these metals. You can also get lucky and find them without any effort at all. But if you want to make sure that you have found the right spot, then you should be careful and patient. As you begin your search, you will see that

there is a lot of digging and walking involved. You may hunt for hours locating only junk targets and modern coins. All it takes is one swing of the detector to locate valuable items. At the end of the day, stay focused and be patient. The rewards of your hard work will come in time, maybe not on this trip but with persistence. Remember, the more junk targets you dig, the better your chances of finding that one valuable keeper that you will have for years to come.



Resources

<https://www.homedepot.com/c/ah/how-to-use-a-metal-detector/9ba683603be9fa5395fab901d0e72bbe>

<https://www.metaldetector.com/learn/buying-guide-articles/getting-started/how-to-use-a-metal-detector>

<https://www.wikihow.com/Metal-Detect>

Videos

How To Use A Metal Detector | 5 Tips On How To Metal Detect

<https://www.youtube.com/watch?v=IWGF4VzzP1I>

Metal Detecting 101. (How to Get Started)

<https://www.youtube.com/watch?v=19CFbiUmHA1>

Where To Metal Detect: How To Pick Great Sites

<https://www.youtube.com/watch?v=IAQRDTxl6Ik>

Amethyst, Beads, Gemstones, Free Scientific Mineral ID, Prospecting equipment/supplies, Exhibits, Demonstrations, Rock Auctions, Youth Activities. Great family fun; contact Gloria Marie; Email: gloriarosevillerockrollers@gmail.com; Website: <https://www.rockrollers.com/index.html>

Aug 11-13—SANTA BARBARA, CALIFORNIA: Wholesale and retail show; Gem Faire; Earl Warren Showgrounds, 3400 Calle Real; Fri. 12-6, Sat. 10-6, Sun. 10-5; \$7 weekend pass; Fine jewelry, precious & semi-precious gemstones, millions of beads, crystals, gold & silver, pearls, minerals, fashion accessories & much more at manufacturer's prices. Jewelry repair & cleaning while you shop; contact Yooy Nelson, (503) 252-8300; Email: info@gemfaire.com; Website: <http://www.gemfaire.com>

Sept 16-17—MONTEREY, CALIFORNIA: Annual show; Carmel Valley Gem & N Mineral Society; Monterey Fairgrounds, 2004 Fairgrounds Road; Sat. 10-5, Sun. 10-5; \$5 kids under 12 free with adult; contact Susie Harlow, (831) 637-0735; Email: susieharlow@gmail.com; Website: www.cvgms.rocks

Sept 16-17—RENO, NEVADA: Annual show; Reno Gem & Mineral Society; Reno Convention Center, 4390 S. Virginia St; Sat. 10-5, Sun. 10-4; \$8, Children under 12 years old Free; Silent Auction-deals, Wheel of Fortune-Fun, Kid's Corner-surprises, Fluorescent Tent-marvels, Demonstrators-knowledge, 30 Vendor-deals, Display-showcases, Door Prizes-galore; contact Dan Ellis , (775) 229-4420; Email: jpog@renogms.org; Website: renogms.org

Sept 16-17—CHICO, CALIFORNIA: Annual show; Feather River Lapidary and Mineral Society Inc; Silver Dollar Fair Gounds, 2357 Fair St; Sat. 9-5, Sun. 9-4; \$5 Adults, all kids under 16 Free; Jade, Opal, Rough Rock, Crystals Fossils, Mineral, Demonstrations Jewelry making, Wire Wrapping, Rock Carving and Painting, and Geode cutting. Display cases, Kid's Wheel of Fortune, Treasure Hunt, Grab Bags, Fossilized Shark Tooth Necklace to the first 250 Kids both days; contact John Scott III, (153) 032-16331; Email: jweazel@sbcglobal.net