GPR Website Link: www.goldprospectorsoftherockies.com

THE GOLD NUGGET

November 2018

Obituary

William "Bill' Wress

We are saddened to report the death of William "Bill" Wress who passed away on October 31. Bill had been a member of the Club for a few years and really enjoyed the meetings and the annual metal detecting hunt. Health issues resulted in the loss of a leg, which curtailed many of his activities and made it difficult to attend the meetings though he tried to make the Christmas Dinner and program each year. Bill was a good man and a friend to most everyone he met. He will be missed.



The Prez Sez by Jim Long



October has come and gone and we have only one official outing left for the year, which is our annual metal detecting outing. Hope to see a bunch of you there. And I encourage you all to read our VP Joe Fortunato's column as to his recent adventure in Nevada. Joe continues to demonstrate his expertise at swinging a metal detector for more than just coins and jewelry. Joe has been very fortunate with his experiences and though he is a very quiet and humble man, he has learned how to do it and how to do it well indeed.

Our Club was recently featured with an entire chapter in the book titled 'Gold!' by Ian Neleigh. That chapter was titled 'The New Prospectors'. If you haven't added this book to your personal library, you

certainly should do so. The overall book features a number of the modern prospectors who kind of represent the 'new' prospectors, and many of them live and operate on the Front Range or nearby foothills and many make their living from gold and the gold industry. This age we live in now is a different one in many ways from the days of the 'old timers' and yet, there is much that is the same. We still seek gold in various ways, much as they did and through very similar methods. Our equipment is by far much better technology wise and far more efficient as well. Though we are certainly limited to where we can search these days, as America is now no longer the wide-open frontier of the past. Private ownership of the land and space has increased exponentially leaving only publicly owned lands under government stewardship of the US Forest Service, the Bureau of Land Management and a spattering of State Trust Lands left for us to access. And sadly, most of those federal agencies have adopted recent policies, which are not so disguised and veiled attempts at banning nearly all forms of mining, large or small scale, in any form. To accomplish this goal, they have limited access by closing roads, blocking campsites, changing policies and adding negative regulations aimed at increasing fees and making those application processes as burdensome as possible to discourage folks from even trying to gain permits of pretty much any kind. In so doing, they have deliberately discriminated against a large portion of the general population and specifically, the elderly and physically handicapped, making it nearly impossible for those particular groups to access their public lands in any fashion other than maintained public roads. The pure volume of vehicle traffic on these roads preclude these unique groups from the opportunity to experience the quiet and solitude possible that is away from the mainstream. That these agencies have done what they are doing is merely a result of the political climate of the day. Special Interest groups have grown to large numbers recently. This is an era in which Conspiracy Theorists abound on nearly any subject you can name. And the Environmental groups have grown as well. They are all getting a lot of money from rich sources whose thinking seems to border on a lack of common sense. There seems to be no taking into consideration the consequences of their actions or desires. They seem to make decision based on the here and now with no regard to tomorrow or the future or how things are int4erconnected in nature. You mess with one thing and you unknowingly alter things down the line for possible generations to come. This younger generation known fondly as the millennials, are being taught in the educational system a lot of these liberal philosophies, which sound so good and alluring that they become brain washed into believing that they are right. The educational system has long been a source of irritation to me. I believe that we have gotten away from basic education of our era to one where all we need to do to confuse this younger generation is to install more pay phones and write in cursive to totally befuddle them. They seem to have no respect for history, no real knowledge of geography, no skill at writing by hand, and no people skills. But hand them a computer and they are in their element.

Maybe I am a dinosaur and grown old past my time like they think most of us older folk are. In my youth, I looked up to nearly all my elders in respect for their life's experiences and the wisdom that they had as result of those experiences. Not that some of them were not necessarily all that smart, that wasn't the point. It was a matter of respect, pure and simple. Respect and a willingness to listen to each other would seem to no longer be acceptable in our culture. And that is not a



good thing I think the old TV show of 'Mister Rodgers and his Neighborhood' ought to be mandatory and required of everyone for one hour a day from age 2 until age 21, no exceptions!!

Anyway, that is the view from here and I wish you all Good Luck in your endeavors, no matter what they may be...! And until we meet again, keep your sunny sides up and may the bottoms of your pans turn bright with that treasured 'Yaller Gold'!

You may contact me at 303-452-6087 or at jnslong945@msn.com. Happy and safe prospecting to al.!!!

The V.P. Corner by "Joe Fortunato



Hello guys and gals, sorry for being absent at the October 17 meeting. I packed my gear and headed for Lovelock, Nevada at about 3:45 AM on the 16th. It had been a year since I had an opportunity to do some metal detecting for gold in northwestern Nevada. Winter weather is closing in on us and it looked like that week was possibly going to be my best chance weather wise to "git-er-done". I am happy to report that this was one of my most

memorable Nevada detecting adventures to date. Road conditions were great going out and coming back. The weather conditions for detecting were near perfect the entire time. I got to detect with two of my gold detecting mentors, they are great when it comes to sharing their techniques and knowledge. They are also very generous when it comes to the areas that they



detect. Finding gold with a metal detector is a very challenging task, so good areas are closely guarded secrets with most people. I got to hunt four new areas during the time that I was with these guys, that is a huge help when it comes down to finding gold or not finding it. I found gold in two of those four areas, those are pretty good odds in the world of detecting for gold. The Rye Patch area has been pounded by metal detectorists for over thirty years. Every piece of gold that is found means there is one less piece of gold when you return. Modern metal detector technology has helped to find gold that earlier detectors could not find, but it is still a "tuff-nut-to-crack". In 2016, I spent six days chasing Rye Patch gold with fellow club member Bob Neumayer, I managed to find one little nugget less than an hour before dark on the sixth day, and that was all we had to show for the entire trip. I hear and read about folks, who, after numerous trips, have yet to find a piece of gold with a metal detector. The fact that gold is so difficult to find with a metal detector, is precisely why some people (including me) like to do it. Over the past fifteen years, I have managed to find gold using all the popular methods. It is always a thrill to find gold, but the "rush" I get from finding gold with a metal detector is the ultimate thrill for me. As I said at the beginning, this was one of my best Nevada trips. I was having such a good time, that I stayed an extra day, and went alone, to an outlying area that has produced some good (but small) gold. That last day was like putting candles on a cake, I took a good trip and made it better. When I headed home early the next morning, I had twenty-five pieces of gold in my poke, nothing big size wise, but what a thrill it was finding and recovering every one of them. I also set the bar a bit higher in another category. I managed to find gold on each of the seven days that I hunted, my previous record was six days in a row in 2016. Getting back to putting candles on the cake, I found fourteen pieces on the seventh day!!! Until next time.....MAY ALL YOUR ADVENTURES BE GOLDEN!!!! Questions or Comments. Call or Text me 303-263-7204 Joe Fortunato

From the Treasurer/Secretary Ledger by Roger Schlenger



The **November Meeting** will feature a drawing for nine (9) gold nuggets of which the largest will be a 2.8 gram nugget. We also have a new 'Special Nugget' for give away, so be sure to purchase drawing tickets for it as well. Be sure to support your Club by buying as many nugget drawing and raffle tickets as you can afford. Remember, your odds of winning a nugget here are far better than your chances of winning the lottery.

Planned 2018 GPR Meeting Programs:

Nov 21 TBD

Dec19 Christmas potluck dinner and program.



There is STILL 'Gold in them thar hills!'

Take a moment to watch this episode of 'Hittin' the Road' to see what we teach about here at WMMI! This episode contains pictures from the WMMI archives, and contributions from our partners and supporters GPOC and CC&V!

Link (copy and paste): https://www.youtube.com/watch?v=8iM6itwiapY

Board Meeting Minutes From Oct 2018

X	James Long	X	Joe Shubert		Joe Fortunato	X	John Johnson
	Mike Hurtado	X	Joe Johnston	X	Chris Kafka		Brandon Luchtenburg
X	Roger Schlenger	X	Bobby Manning	X	Andy Doll		Gary Hawley

Quorum Present: Yes.

Call to Order by: Pres Long at 6:02 pm **Reading and Approval of Minutes:** Corrections:

<u>none</u> Approved as read/corrected: <u>yes</u>.

Treasurer's Report: Questions: none Approved:

yes.

Correspondence: 1_ phone calls, 11 e-mails, 3_ mailings. Webmaster: Total Hits 152601 Hits for last 2 month 232.

Committee Reports:

- Discussed election nomination tonight, will seek nomination to replace Mike Hurtado who is stepping down.
- The Barker Award Candidates bios are done.

Unfinished Business: None at this time.

New Business: Ordered the numbers for the membership badges for next 6 years.

Planned Outings for 2018: Nov. 03 Sat Metal detect hunt at Majestic View Park in Arvada, 9a From the Board:

- Pres. Long advised that the Lake Gulch Outing of Sept 29 went very well.
- The Panning demo on Oct. 17 in Arapaho County also went very well.
- BM Joe J. provided the bio for tonight's speaker

Additional Announcements: Next Board Meeting: Nov. 21, 2018 at 6:00 pm. Next General Meeting: Nov. 21, 2018 at 7:00 pm.

Tonight's general meeting program: We will be hosting David Emslie who will be talking about gold prospecting and related matters.

Adjournment: Meeting stands adjourned at 6:32 pm.

General Meeting Minutes From Oct 2018

- 1. Meeting was opened at 7:05 pm by **Pres. Long** with the Pledge of Allegiance.
- 2. **Pres. Long** then announced that the evening Program would feature **David Emslie** who would speak on the subject of refining gold and other precious metals. David owns Prospectors Gold and Gems, and is an expert on gold refining. His program was well received and extremely informative.
- 3. Pres. Long gave the Metals Report: Gold 1227.80, Silver 14.61, Platinum 832.00, Palladium 1044.00. Rhodium 2305.00.
- 4. **Web hits** for last month were approx. 232.
- 5. Treasurer Roger Schlenger reports that the Club remains in the black. Report is available for review for anyone who wishes to see it. We now have another 'Special Nugget' to raffle off so don't forget to buy these tickets as well. Also, be sure to buy tickets for tonight's 9 nuggets drawing, the largest being 2.8 grams.

OUESTION OF THE MONTH

What satellite employs gold to coat its 32-foot (10 meters) refrigerant tube?

Directors Members President

2018 GPR Board of

James Long

Vice President

Joe Fortunato

Secretary/Treasurer

Roger Schlenger

2 Year Board Members

Joe Johnston (2016)

Joe Shubert (2015)

1 Year Board Members

Chris Kafka

Andy Doll

Brandon Luchtenburg

John Johnson

Bobby Manning

Mike Hurtado

Past President

Gary Hawley



- 6. **Dan McConnell** reported from the Membership Table that we had 60 members in attendance. There was 1 guests present. The total meeting attendance was 61.
- 7. Pres. Long read the 'Question of the Month', which was "On the GPR web page, how many winners of the Ken Barker Award are portrayed"??
- 8. **Pres. Long** advised that there was time to enter items at the break for the 'Finds of the Month' table and that the monthly winners from tonight will need to be saved for the Finds of the Year competition in November, 2018. A reminder to all that gold submissions need to be weighed dry and only one submission per person per category. Be sure to fill out the entry cards completely.
- 9. John Johnson announced the 'Cache Clue # 8'.
- 10. **Pres. Long** advised that **Mike Stevens** would be taking over the Club Store. We appreciate his stepping up to the task.
- 11. **Pres. Long** informed the membership that:
 - The Club Outing at Lake Gulch on Sept. 29 went very well and lots of gold was found.
 - The Panning Demo of Oct. 17 also went very well.
 - The next Outing will be the Annual Metal Detecting Hunt at Majestic View Park on Nov. 3, starting at 10am.
 - There were at least 12 entries in the annual Pumpkin Carving contest and members were encouraged to vote for the best 3 only.
- 12. **Pres. Long** announced the <u>break at 8:23 pm.</u> Meeting was <u>called back to order at 8:42 pm.</u>
- 13. **Pres. Long** announced the winners of the 'Question of the Month'. The answer was, "14"!! There were 28 winners who received their extra drawing ticket for the gold drawing.
- 14. **Pres. Long** announced the winners for the 'Finds of the Month'. Those were:
 - **Best Coin John Olson** with an 1886 Seated Liberty dime he found metal detecting west of Denver.
 - **Best Jewelry Kale Smith** with a shark tooth diamond ear ring he found while scuba diving in the Bahamas.
 - <u>Best Mineral</u> **Jim Long** with a shale specimen containing a clam fossil found while hunting antelope in southern Colorado.
 - Best Artifact David Sheldon with an old Gold Deposit Slip from Nome, Alaska, dated Oct. 5, 1901.
 - <u>Best Bottle</u> Jim Long with an old Owens-Illinois Glass Co. bottle, circa 1932, found while antelope hunting in s. Colorado
 - Most Raw Gold Jim Long with .55 grams of gold he found while prospecting in Gilpin County.
 - <u>Largest Raw Gold</u> **Dennis Perederin** with 2 small nuggets weighing 0.098 grams, found while prospecting in Gilpin County.
- 15. **Pres. Long** then announced the winners of the Annual Pumpkin Carving contest.
 - <u>1st place</u> went to John Johnson III with a carving titles '<u>Gold Insanity</u>'.
 - 2nd place went to John Olson with a carving titled 'Gold Bug'.
 - 3rd place went to Robert Holmberg with a carving he titled 'Gold Fever'.

Each entry won a gold nugget for their efforts. This year's contest saw the most entries the Club has ever had before.

- 16. **Pres. Long** concluded the evening with drawings for the numerous door prizes donated by the **GPR**, **Dick Oakes**, **and Pres. Long**, followed by drawings for the 9 gold nuggets. Pres. Long also wants to remind that holders of drawing tickets for the regular gold drawings who did not win and want to redeem those tickets may present them at the end of the Meeting and they will be reimbursed at .01 cents on the dollar, or they shall be considered to have been donated back to the Club. Those assisting in the drawings were **Chuck Cown** and **Roger Schlenger**.
- 17. **Pres. Long** reminds the members that sometimes during the meetings, The President's time is overwhelmingly taken up by the many who wish to speak to him and he apologizes if anyone ever feels like he is unavailable. It is not his intent to be inaccessible and he encourages anyone with questions to contact him by e-mail or phone outside the meetings at any time. His e-mail and phone number are on the web site.
- 18. **Pres. Long** thanked **Kris and Joe Kafka** and all those who contributed to the Refreshment Table. Any member is encouraged to chip in and add to the spread each month. Don't forget the 'tip jar' also, which helps to defray costs. This really helps the folks who run the table and those who volunteer up front each month. The Club appreciates the efforts that each and every one of you to make the refreshment table enjoyable.
- 19. The **November Meeting Program** will be a presentation to be determined.



- 20. Until next time, remember to prospect safely, live long and be grateful for that golden bounty from the stars, that gleaming magical miracle, called 'gold'!
- 21. The Meeting was adjourned at 9:02 pm.

Finds of the Month 2018

The finds of the Month for Sept were as follows:

Best Coin – John Olson with an 1886 Seated Liberty dime he found metal detecting west of Denver.

Best Jewelry - Kale Smith with a diamond shark tooth ear ring he found while scuba diving in the Bahamas

Best Mineral – Jim Long with a sample of shale with a clam fossil he found while antelope hunting in S. Colo..

Best Artifact – David Sheldon with an old Gold Deposit Certificate from Nome, Alaska dated Oct. 5, 1901.

<u>Best Bottle</u> – **Jim Long** with an old Owens-Illinois Glass Co. bottle, circa 1932, he found while antelope hunting in S. Colo..

Most Raw Gold – Jim Long with .22 grams of gold he found in Gilpin County.

<u>Largest Raw Gold</u> – Dennis Perederin with 2 nuggets weighing combined 0.098 grams he found in Gilpin County.



We missed the photo of Kale's shark tooth ear ring, sorry











Be sure and bring your treasures and finds in to share with the rest of the Club. We would all like to know what everyone else is finding out there so don't be bashful. Winners each month will have their name published in the Newsletter. There are six (6) categories to choose from when entering. Monthly winners will need to save their finds to bring back to the November 2018 meeting to compete for the Find of the Year 2018. Thanks to all those who also submitted, additional finds that were not judged winners.

A Miner's Laugh

This is the true story of George Phillips of Meridian, Mississippi, who was going to bed when his wife told him that he'd left this of stealing things. He immediately phoned the police, who asked, "Is someone in your house?" and George said, "No," and explained the situation. Then they explained that all patrols were busy, and that he should simply lock his door and an officer would be there when available.



George said, "Okay," hung up, counted to 30, and phoned the police again.

"Hello, I just called you a few seconds ago because there were people in my shed. Well, you don't have to worry about them now because I've just shot them all."

Then he hung up. Within three minutes three squad cars, an Armed Response unit, and an ambulance showed up. Of course, the police caught the burglars red-handed. One of the policemen said to George, "I thought you said that you'd shot them!"

George said, "I thought you said there was nobody available!"

(Taken from the internet and revised just for all us 'old miners)

Annual Pumpkin Carving Contest

During the October General meeting, members were encouraged to carve a pumpkin with a mining related theme and bring it to the meeting for judging. This year saw the largest submission of entries that the Club has ever seen before. There were 12 entries, all vying for the top prize. Some of the entries were nothing less than spectacular and it was not easy to judge the winner as the voting was exceptionally close for the top two entries and the third place entry was not



very far behind.. Congratulations to all who entered this year as you all did a magnificent job at carving. Each of the winners received a gold nugget for their efforts. Well done folks!!!



1st – Gold Insanity By John Johnson III



2nd – Gold Bug by John Olson



3rd – Gold Fever by Robert Holmberg

Annual Arapaho County Fall Festival at the 17 Mile House Panning Demonstration

The Club traveled on October 13down to the 17 mile House on South Parker Road for the Annual Arapaho County Fall Festival. There, we performed gold panning demonstrations for the folks who attended the festival.

There were some 16 vendors this year of which we were one. The attendance keeps getting larger and larger each year at this event and we have a lot of fun performing there each year. It was a bit chilly this year as there was a scheduled snow storm due to arrive on Sunday which dumped some 3 inches of snow, but that was for the next day and not this one, thank goodness. Many thanks to Club members Jack Meineke, Frank Zahn, Bobby Manning and Carl Adams who all volunteered their time to assist in making the event a successful one for the Club.





Giant Emerald Found by Miners

Giant 5655 carat emerald crystal with golden green hue has been found by miners inside the world's largest emerald mine in Zambia, Africa. The emerald was found in early October and was uncovered by geologist Debapriya Rakshit and experienced miner Richard Kapeta. The mine is a large open pit mine, which is partially owned by Gemfields, a London based mining company. The gemstones within the mine were formed hundreds of millions of years ago. The emerald has remarkable clarity and a perfectly balanced golden green hue and was found in a portion of the mine in which the miners have been having a lot of successes of late and the mining team has been finding a lot of good gem stones lately buy none with the matching clarity of this one. The find is being called a 'significant' find for the emerald world. It is unknown at this early date, how many gem stones will be eventually cut from this one huge crystal but it is already believed that it will leave its mark in the history books of exceptional gemstones. The crystal has been named 'Inkalamu' which translates to 'Lion' in the local Bamba language The crystal



will be put up for sale in Singapore in November of this year. While this particular crystal is a huge discovery, it is by far, not the largest to come out of this particular mine. In 2010, miners discovered a 6225 carat emerald which was named 'Insofu', or 'elephant' because of its size. The clarity of the latest discovery is believed to exceed that of the 'elephant' emerald.

Mining Concerns from Around the Country

(In my attempt to keep our members aware of what is happening involving mining from around the country, I will run this little section each month and see how it goes. I am apt to put a little passion and some direct finger pointing in my reporting, for which I will offer no apology to anyone who may feel offended. I support responsible mining and responsible miners, period. It is what it is, and it is strictly my opinion, and that is that, like it or not .jj)

Political Correctness Out of Control – Prospector Banished from Campus – California State University Long Beach announced it will move a half century old 'Prospector Pete" statue away from a prominent place on the campus because of the impact the 1849 Gold Rush had on indigenous people. The statue, formally known as "The Forty Niner Man" was unveiled in 1967 as a rugged looking bearded man sitting on a rock. It features no gold mining or panning tools. In recent years, university athletics have moved away from the college's traditional "49er" and "Prospector Pete" sports teams and mascot names in favor of the nickname "Beach". The university's Associated Students organization began working a year ago on a resolution to move the statue. In place of the statue, the student resolution recommended 'a recognition of our shameful previous association with prospectors'. It suggested a plaque.

(And my opinion of all that is that this BS has gone far enough. Those stupid kids have no sense of history or they would ban themselves from the campus because they represent the people who stole California from Mexico in the first place. But then, it is California after all, the land of the fruits and nuts for sure....i have spoken...jj)

Interior Department Reigns in "Sue and Settle" – The Department of Interior (DOI) announced a series of steps the agency will take to reign in "sue and settle" tactics utilized by environmental groups and supported by the previous administration. The agency announced that \$4.4 billion was awarded in settlements and consent decrees between January 1, 2012 and January 19, 2017, which average more than \$800 million in taxpayer dollars per year. Just in the past year, DOI was party to 96 settlements or consent decrees and paid out more than \$1.7 billion dollars. In addition, many of the settlements were not disclosed to the public. DOI agreed to create a publicly accessible webpage with details of ongoing litigation, publish notices for proposed consent decrees in the Federal Register and allow at least 30 days for public comment, crate a searchable database of judicial rulings, consent decrees and settlements along with attorney fees paid, publish any consent decrees or settlement agreement that requires the agency to commit funds or to seek budget appropriation or authorization. The online version of this article is available at www.icmj.com and includes a link to the DOI announcement from Interior Secretary Zinke.

(I was sorry to see him go as he was well on his way to 'draining the swamp' as it were. Unfortunately and in a sad way, I think he became a part of the swamp before he exited, but at least he wa making strong progress in favor of miners and mining and that I liked...jj)

Forest Service Part 228 Regulations Loom – In September, the US Forest Service published and "Advanced notice of proposed rulemaking' and request for comment. The agency is considering changes to 36 CFR (Code of Federal Regulations) Part 228 regulations that govern locatable minerals. The "good" part is the agency is proposing expedited procedures for exploration that disturbs five acres or less and making the regulations more consistent with Bureau of Land Management regulations, which is what we have been advocating along with Public Lands for the People, the ICMJ and AMRA for some time. Just one of the "bad" parts is that the agency is trying to codify a 14 day limit for camping on Forest Service lands after losing in court in *US vs Lex & Waggener* back in 2003, and the agency wants to require bonding for activities that were previously exempt. The ICMJ and the PLP presented the USFS with 412 complaints that had been received from miners with a summary of th9ose complaints and a suggested number of fixes for many of the complaints. The largest complaint was that of restricting access to public lands followed by a complaint of what the definition of "significant disturbance" was and what it should be. The USFS definition was overbroad, overboard, unreasonable and plain defied common sense. An official complaint was also filed alleging that the USFS has failed to comply with Executive Order 13377, signed by President Trump on February 5, 2017, requiring the agency to reduce unnecessary



regulatory burden placed on the American people. The comment time allowed for comments on the USFS proposed action was October 15, allowing only 30 days for all this to become public and to receive comments. However, a great many in the mining community was totally unaware of anything going on at all. Fortunately, the ICMJ and the PLP and AMRA were on top of this and got the word out to a large section of the mining community. We will simply have to await results to see what is going to happen.

(Obviously, the USFS has no intention of complying with the President's instructions and are adopting the 'ignore, delay and obstruct' policy currently used by the Democratic National Party Leaders, This is bothersome to me as this part of the swamp needs some serious draining as well. I personally foresee that these problems are not going to abate any time soon. While hunting in the last two years, I have seen closures of camp site areas and access roads increase alarmingly in many areas that I hunt and fish in. Both the USFS and the BLM are deliberately ignoring the President and in my opinion, are deliberately orchestrating a campaign of removal and obliteration of access to public lands for the majority of the people. This is wrong...!!! They are especially denying access to these lands to the elderly and the handicapped, yet I see nobody screaming bloody murder. It is like we are all a bunch of sheep, or lemmings, waiting to be led to the slaughter...jj)

The gold-plated Oscar trophies have a special space connection, according to NASA.

The same process that coats the trophies will also help the agency's \$8.9 billion <u>James Webb Space Telescope</u> look at faraway galaxies, NASA officials said.

Gold is a useful substance in space because it doesn't tarnish. It reflects light in infrared wavelengths, making it easier for James Webb to spot distant objects. Gold also blocks absorption of radiant heat from telescope instruments. For example,

James Webb, which is scheduled to launch next year, employs gold to coat the 32-foot (10 meters) refrigerant

tube that cools its Mid-Infrared Instrument. Typically, instruments in space are gold-coated using a vapor-depositing method, NASA officials said. In a vacuum environment, the metal is heated up until it turns into a gas. The gas subsequently condenses on the desired surface in a fine layer. However, this process makes gold fragile and causes it to lose some reflectivity.

"We've seen many times over the years that somebody will put a nice gold coating on something, but as soon as you bend it, all of a sudden a whole layer of gold will peel up and flake off," John Gygax, an engineer at NASA's Goddard Space Flight Center, in Greenbelt, Maryland, said.

Gold is highly reflective and doesn't tarnish — great for the main mirror of NASA's James Webb Space Telescope (seen here), and also to block radiant heat from instruments in the telescope's interior.

A company called Epner Technology came up with a solution to that problem — using "electroplating" technology to apply the gold. Electroplating generally requires using electric currents to coat one metal (such as copper) with a more precious metal (such as gold), according to

NASA Goddard turned to Epner when it was looking for a better way to coat the Webb telescope's instruments. Epner said its electroplated gold was more reflective than vapor-deposited gold — a claim that checked out after NASA tested it in space-like conditions, agency officials said.

The company's proprietary technique has been in use in aerospace since the 1990s; it also has been working with NASA since the 1970s. Epner perfected its electroplating process through its work on a gold-plated mirror for an instrument aboard NASA's Mars Global Surveyor orbiter, which operated at the Red Planet from 1997 through 2006, and a gold-plated secondary infrared mirror on both of the W.M. Keck Observatory telescopes in Hawaii.

"In order to meet the needs of both aerospace projects, Epner tweaked its proprietary processes to ensure the highest possible reflectivity while also achieving a hardness triple that of pure gold," NASA officials said in the same statement. "The trick, Epner explains, was in modifying the electric current to get a more tightly packed atom. Because the gold remains pure, the reflectivity remains extremely high."

Epner's work on Webb and other aerospace projects also got the attention of the Academy of Motion Picture Arts and Sciences, which had a problem with its Oscar trophies. The trophies were previously cast in tin alloys, which were in turn

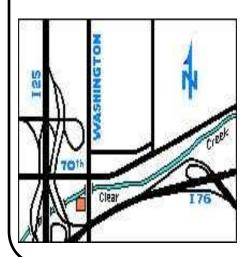


plated with gold. While the gold looked brilliant on stage, it eventually wore off. Epner started work with the Academy in 2016.

"We guaranteed that our gold coating will never come off," company president David Epner said in the same NASA statement.

The company has promised to replate any Oscar that needs it. "That's something I'll never have to make good on," David Epner said.

TYMKOVICH MEATS

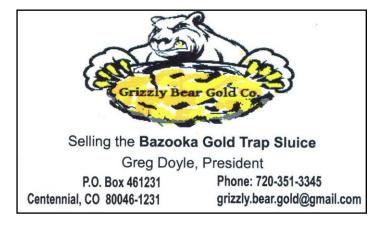


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Coming Announcements and Special Events for Dec 2018

(WMMI - Western Museum of Mining & Industry, 225 North Gate Blvd. Colorado Springs, CO 80921 (www.wmmi.org))

SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3 Hanukkah	4	5	6 WMMI National Miner's Day	7 Pearl Harbor Dav	8
9	10	11	12	13	14	15
16	17	18 GPR Club Meeting GPR Pot Luck Dinner		20	21 First Day of Winter	22
23/30	24/31 New Year Eve	25 CHRISTMAS	26	27	28	29