

# The **PLANCHET**

A Half-Dollar's Tale  
**PAGE 7**

1¢ Coin Prices  
**PAGE 11**

Bei Georg, er,  
By George, Part 2  
**PAGE 15**

An Aureus of  
Julius Caesar  
**PAGE 23**

XRF – The Metallic  
DNA of Ancient  
Gold and Electrum  
**PAGE 27**

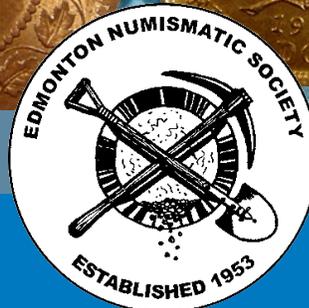
**+** **ENS SPRING COIN  
SHOW AND SALE**

Edmonton Numismatic Society

Volume 66 · Issue 1



THE PLANCHET \$4.75CDN



January 2019





# The **PLANCHET**

Volume 66 · Issue 1

## Feature Articles

---

1 **Message from the President**

2 **Next Meeting**

3 **About Your Society**

5 **Volunteer Recognition**

6 **Spring 2019 ENS Show**

10 **Coming Events**

14 **\$2 2018 Armistice Varieties**

26 **Membership Form**

37 **Puzzle Page**

7 **A Half-Dollar's Tale**

A coin's perspective of Canada in the early twentieth century.  
*by Vaughn Seward*

11 **1¢ Coin Prices**

Current retail sales prices of Canadian coins.  
*DTS Average by Dean Silver*

15 **Bei Georg, er, By George, Part 2**

Another case where one obviously wasn't enough, a short history of England's second George.  
*by Marc Bink*

23 **An Aureus of Julius Caesar**

One of the largest issues of gold coins minted by the Romans.  
*Ancient/Medieval by Terence Cheesman*

27 **Part 1: XRF – Digging Into the Metallic DNA of Ancient Gold and Electrum**

Really old coins boggle us with their scientific pedigrees.  
*Amid the Ruins by Wayne Hansen*

---

## The Planchet Team

### **Editor-In-Chief**

Joe Kennedy

### **Co-Editors**

Wayne Hansen

Marc Bink

Pierre Driessen

Henry Nagtegaal

### **Content Editor**

Chris Hale

### **On-Line Distribution**

Pierre Driessen

### **Printing and Mailing**

Howard Gilbey

---

### **DISCLAIMER**

The opinions herein are those of the individual authors and are not necessarily those of the Edmonton Numismatic Society.

The editors, at their sole discretion, reserve the right to accept or refuse any material submitted for publication.

# Message from the President

**Marc Bink**

**January, 2019**

Happy New Year!

I hope you all had a safe and happy Christmas season, and that Santa was good to you all. But, 2018 has been consigned to the history books and we have to look forward to 2019.

As for the Club, we're in pretty good shape: we have money in the bank; we've solved our location issues; fixed our website (and got it into the 21st century); and we have the best show in Canada. Who could ask for anything more? Well, we can, and we will. There are still things that need to be done – attracting more members and getting more people interested in numismatics. We're making some inroads with our shows and the Kid's Auction. But we shouldn't stop there. We need to be more out and about and involve younger people in what we're doing. Otherwise there is a possibility that our club could disappear within this generation. So I'm open to ideas; do you have any ideas as to how we can increase our "presence" without spending a ton of cash? If you do, I'd love to hear from you.

As usual, Joe has conjured up another wonderful edition of the Planchet. Ours is one of the

few magazines/newsletters that still presents unique researched articles by individual members. We could still use some more authors/writers; I'd love to finally get someone to write a regular column on Canadian numismatics, both coins and banknotes. The Chartered Bank era is particularly fascinating, there must be thousands of stories associated with those banks and how they made and disseminated money. And then one of the questions I've always had; back in 1935 it was decided that Canada's coins needed modernization, and that the new reverses were to be selected and engraved by Canadian artists. So how was it that a couple of very famous English and not Canadian engravers got the nod? How were those decisions reached? Who decided that?

I'd like to apologize to my readers for not having a column in place last month, I'll try not to make a habit of it. Although there are times when life and "writer's block" does get in the way. I'm planning on continuing my George series, but after that, I'm kind of out of topics. I haven't picked up a coin that really "talks" to me recently. I have a few older articles that were started, but, they weren't

very good so they weren't finished. I guess if nothing else I'll have to go back to them. So; barring that, is there anything you think I should write about? Is there anything in world, medieval, German, English, or American coinage you'd like to know about? Let me know if you have something in your collection that is just dying to have its story told.

This month we have a new writer appearing in the Planchet, offering another unique perspective on collecting coins. That's the thing about numismatics and exonomia, there are so many things that can be done with coins besides plopping them into a box or a book. I will now never look at worn coins the same way again, and surprisingly enough, there are some coins that are worth more in absolutely worn out shape than in mint state, who knew?

So if you have a unique or different perspective about collecting coins or exonomia, feel free to put it on paper and submit it. We have a number of people who can help you write it out if you're not too keen on the technical details, just bring the ideas and enthusiasm! ☒



**The ENS is on the web**

[www.EdmontonCoinClub.com](http://www.EdmontonCoinClub.com)

- get updates on coming events
- find out about us
- useful links

**South Edmonton Coin & Currency Ltd.**

**We buy & sell coins, currency, gold, silver, jewelry and antiques**



5712 111 Street NW  
Edmonton, Alberta  
T6H3G1  
[www.southedmontoncoin.com](http://www.southedmontoncoin.com)

**Leigh & Matthew**  
Phone: 780-988-9013  
Fax: 780-988-9015



**SUBSCRIBE TO  
THE PLANCHET**

**7** issues a year  
for only \$15

**+** a one-year  
membership  
in the Edmonton  
Numismatic Society.

**Wednesday, February 13, 2019**

**Royal Canadian Legion - Branch 255**

10427 - 174 Street NW. Edmonton

**Meeting Starts at 7:15 pm**

- ENS Society Matters
- Show and tell: bring your recent finds to share
- Silent auction
- Presentation: My Trouble with Athenian Tetradrachms
- Refreshments: coffee, tea, pop and cookies
- Door prize draws

For information regarding events, or to add an item to the agenda, please send an email to editor\_ens@yahoo.ca

P.O. Box 78057,  
RPO Callingwood,  
Edmonton, Alberta,  
Canada. T5T 6A1

**In Memory of ENS Member – Donald (DEL) E. L. Keown**

**Aug 20, 1931 – Dec 20 2018**

It is with great sadness the family announces the passing of Del. He will be lovingly remembered by son Hal (Michelle), son Brent (Anne), daughter Brenda, granddaughter Jennifer (Matt) Woiken, granddaughter Kimberly (Robert) Kleebaum, and great granddaughters Maya and Brooke Woiken. He was predeceased by his father, Judge H. E. Keown, Mother, Ethel R. Keown and loving wife of 60 years, Ada, and daughter Tara Lynn. He grew up playing the sports he loved like hockey and baseball, which led his team to be inducted into the Saskatchewan Baseball Hall of Fame. He was signed by the Detroit Red Wings at 18. Del led an interesting life which presented many opportunities to serve many organizations. He served in all areas of Kinsmen and served as Charter President of the Kinsmen Club of Sherwood Park. He was on a committee of three that developed and administered the first Kinsmen provincial lottery. That led to an appointment by the Government of Alberta to develop and administer lotteries. Del chaired the provincial task force to develop the Department of Consumer and Corporate Affairs, where he remained as Assistant Deputy Minister until his retirement. He was

one of the founding members of the New Home Warranty program of Alberta. Later serving as a director of Alberta Builders Association. Serving as International President of the National Association of Consumer Credit Administrators, he was awarded the association's top honor and is the only Canadian to serve in that capacity. Del submitted many legislative proposals which subsequently were enacted by the legislature. He also served on many business boards. Del genuinely enjoyed people which allowed him to make lasting friendships wherever he traveled. Del was quick to point out that successes were due to contributions from all that were involved in any project. At his request there will be no funeral. In remembrance of DEL, donations may be made to the Heart and Stroke Foundation. 



Source: *Edmonton Journal*

by **Mitch Goudreau** ENS Secretary

## December 12, 2018 ENS Meeting Minutes

Marc Bink, the ENS President, opened the meeting at 19:15 hrs and welcomed the 40 members in the room for this charity auction and volunteer recognition evening.

### Club Matters

The ENS has secured contracts to keep hosting our March and November coin shows at the current Howard Johnson hotel location until the end of 2021.

### March 2019 Coin Show

The information on the March 2019 coin show is now posted on the ENS website, including access to the silent auction forms.

### Awards

As mentioned earlier, tonight is the *Go for Gold* awards evening. Marc thanked the ENS volunteers for the tremendous work done throughout the year. The success of our society would not have been possible without the assistance of our dedicated members. Marc presented \$5 silver maple leaves containing an ounce of pure silver to everyone who qualified in each category in 2018. The four categories recognized are for general volunteers, contributions to *The Planchet*, doing displays or presentations and lastly for being on the ENS Executive.

To conclude the 2018 *Go for Gold* program, a draw was held to determine the winners of two Canadian mint state \$5 gold coins struck in 1913. Arif Sheena was the proud winner of the coin in the general volunteer category, while Joe Kennedy's name was selected once again from *The Planchet* group's entries.

### Charity Auction

After the draw for the door prizes, our annual charity auction was held. In preparation for the auction, Danny Kachan made a motion for the ENS to match the money raised this evening, seconded by Bob Ericksson. A vote was held, and the motion passed.

Several worthy charities were put up for consideration, and a vote was held to determine the winning organization. Our auction staff, Henry Nagtegaal, Danny Kachkan and Tom Schubert, impressed everyone with their skill in selling all lots donated by ENS members. The amount raised at the auction was \$588.75, which means that a grand total of \$1,175.50 will be donated to the Stollery Children's Hospital by the ENS.

### Conclusion

Marc Bink wished everyone a joyous holiday season, and the meeting was adjourned at 21:35 hrs. 🍷



## 2018–19 Executive

Marc Bink – **President**

Paul Purdie – **Vice President**

Pierre Driessen – **Treasurer**

Mitch Goudreau – **Secretary**

Joe Kennedy – **Editor-In-Chief**

David Peter – **Past President**

### Directors

Ted Abbott

Marv Berger

John Callaghan

Terence Cheesman

Mirko Dumanovic

Howard Gilbey

Wayne Hansen

Alvaro Rodriguez

Jim Vanderleest

Greg Wichman

### Youth Director:

Danny Kachkan

**Webmaster:** Markus Molenda

**Twitter:** Roger Grove

**Librarian:** Mitch Goudreau

**Show Chair:** David Peter

**Social Activities:** Pierre Driessen

### PRIVACY POLICY

The Edmonton Numismatic Society (ENS) does not engage in the sale nor distribution of personal information to third parties for commercial purposes. All information collected is strictly for ENS internal use and purposes, to permit the ENS Executive and its agents to communicate with you about ENS related matters and to provide you with the full benefits of ENS membership.

### THE PLANCHET COPYRIGHT NOTICE

© Copyright 2019. All information herein, the design, style and format are the property of the Edmonton Numismatic Society (ENS). All rights reserved. No part hereof may be reproduced in any form or medium, electronic or otherwise, without the express written consent of the ENS Executive Committee. Current members of the ENS are entitled to make one (1) printed copy of this issue and to store one (1) copy in electronic format as part of their membership privileges, further distribution is strictly prohibited.



# ENS Volunteer Recognition Program 2018



**Silver Maple Leaf** (awarded to each volunteer) and **Gold \$5 Coin** (prize draw in the General Volunteer and the Planchet categories).

**Marc Bink** (ENS President) and **Pierre Driessen** (ENS Treasurer)

(Photo: Dan Gosling)



**General Volunteer Category, Go for Gold Winner**

Marc Bink (right) presents the award to prize draw winner: Arif Sheena (left). (Photo: Dan Gosling)



**Planchet Volunteer Category, Go for Gold Winner**

Marc Bink (left) presents the award to prize draw winner: Joe Kennedy (right). (Photo: Dan Gosling)

# Spring 2019 Coin Show & Sale

Canada's largest spring numismatic event

**Sat. March 9, 2019** 10:00am - 4:45pm

**Sun. March 10, 2019** 10:00am - 4:00pm

Something for every collector:

Canada, US, world, modern, medieval, ancient coins, paper money, tokens, medals, watches, bullion and collecting supplies.

## HOWARD JOHNSON HOTEL

**15540 Stony Plain Road, Edmonton, Alberta. T5P 3Z2**

**780-484-3333** for hotel room reservations

Hotel room bookings: use code Edmonton Coin Show (for your special show rate)

**Admission:** \$5 at door (youth under 16 years of age free)

- ATM on premises & bank nearby
- Parking: free (around the hotel and on street)
- Transportation: easy access, centrally located, bus service with Jasper Place transit hub nearby.
- Families Welcome!

### Special events:

- **Free appraisals** of your coins, medals, paper money, tokens, watches and other time pieces
- **Educational displays** of coins and medals
- **Door prizes** including gold coin draw

### Silent Auction for Adults

- bidding open to everyone

### Youth Coin Auction

Hosted by Edmonton Numismatic Society and the Edmonton Coin Show

**Saturday, March 9, 2019**

**1:00 pm to 3:00 pm (arrive by 12:45 pm)**

Howard Johnson Hotel,  
15540 Stony Plain Road, Edmonton, Alberta

- participation is free, parents are welcome – register at the admission table prior to the event.
- an excellent and fun introduction, in a non-pressure setting, to coin collecting and auctions
- all material for participation will be provided, including: catalogue and play money for bidding!



Sponsored by the Edmonton Numismatic Society

---

# A Half-Dollar's Tale

by **Vaughn Seward**

I hold in my hand a silver dollar. The date has long ago worn away. From the vague outline on the heads side it is apparent that the coin is a US Morgan. On the other side is the eagle, now flattened into a two-dimensional outline. Some might view this coin as worthy of nothing more than the melt box. I see much more. For one thing, I think pieces such as this grow in rarity at a faster pace than dated coins. But mostly, each coin has a unique history of circulation. One can only wonder at the many places such a coin has traveled, and the many hands, wallets, and cash registers it has been in and out of. In a farmer's pocket one day, in the movie actress' purse the next day. Each scratch and dent was caused by some thing or someone.

Another coin. This one is a Canadian fifty-cent piece. There is no date, the tail's side is worn flat, and sun reflects off it like a mirror. The monarch's portrait is Edward VII and to the left of the king's head are very fancily-engraved initials: C.H. So who was CH? What did he or she do? Where did he or she work and live? Or was it just a jeweller practicing his new engraving tool?

Through an eye-piece, we can examine every scratch and mark, the depth of wear on the edge, and the ding at the 11:00 position... and ponder it all in silence. Think of all the history packed into those 11 grams of silver. What stories could be told. Then, almost imperceptibly, a voice...

"Yeah, you are right, it's been a long, long journey, although most of the time I've spent sitting in a drawer, or on a shelf in a farm kitchen, or in a paper roll inside a cash drawer. Just waiting, and waiting; waiting to perform my duty. Some of the things I was used to buy were quite important, like a tank of gas, some groceries, postage for a gift sent to a grandmother in France. Other times I shook my crowned head at the silly things for which I was traded. I think you'd be shocked at other things... but not me, I've seen and heard it all. But let me start at the beginning and tell you some of the things I've experienced.

My earliest memory is flying through the air into a wooden barrel along with a bunch of



other brand new half-dollar silvers. I found out later that this was in London, at the Royal Mint. We eventually got picked over and some of us were pulled out and I eventually found myself in a canvas sack packed together with many others. It was dark and cramped and after what seemed like ages I recall being slammed down with the others in the sack on a counter. After being pulled from the sack, I looked up and noticed a calendar on the wall. A fancy logo and name were at the top. Apparently we were in a bank in Montreal and it was December 1903.

Many of us were taken out of the sack, counted, and placed in the cash drawers of each bank teller. As I was clinked together with other coins and tossed into the metal drawers, I felt the beginning of what would eventually, after many years, diminish my mirror-like finish into a faint image of my former self.



I didn't stay long in that first drawer as on that very day a young lady come in to the bank and before I knew it, I was quickly squirreled away into the bottom of her purse. It seemed only moments later that I was pulled out and exchanged for a pair of lady's gloves. That was the beginning of an almost daily routine of being cast into and out of cash registers, purses, and pockets. And every few days I found myself flying in and out of different banks and into different towns and cities.

After a short time across into the US and back, I found my way to Winnipeg in the hands of a modern day voyageur, a fellow named Jim. He and several buddies decided to re-enact a canoe voyage across the lakes, rivers, and streams of Northern Ontario. All went well until one sunny afternoon we stopped for a lunch break on the edge of some small lake. Jim was sitting on a drift log and as he pulled the

## Calgary Coin



Dealing in all aspects of numismatics. Specializing in ancient and medieval coinage.

### Mailing Address

Robert Kokotailo  
Box 1608 Stn. M  
Calgary, Alberta  
Canada T2P 2L7

### Store address

1404 Centre Street SE  
(4 blocks south of the  
Calgary Tower)

Please send mail only to the  
PO Box Mailing address.

**Phone** 403-266-5262

**Email** [contact1@calgarycoin.com](mailto:contact1@calgarycoin.com)

**Web** [calgarycoin.com](http://calgarycoin.com)

## Collector to Collector



**Coins, Paper Money,**  
*Tokens, Artifacts and*  
*Investment Grade Rarities*

Always buying collections & individual pieces.  
Gold & Silver Bullion as well.

Estate Appraisals – Flat Fee.

Honest and forthright advice about current market conditions and what avenues that are available to you – from Third Party Certification and grading, to where to sell your collectibles.

Sometimes the best advice is to keep it in the family.  
Sometimes there are other directions and opportunities.

**Greg and Tracy**

email: [GTU@xplornet.ca](mailto:GTU@xplornet.ca)

compass out of his pocket, out I came with it. I silently slipped down behind the log onto a bed of sand. And there I remained for the next several summers and winters.

On a fine spring afternoon about three years later a trapper just happened to stop at the same spot and a ray of sunlight reflected off me and the next thing I knew, I was back on a Journey somewhere. And a few months later I was exchanged in a bank in a little town named Kenora. Shortly after that I was on the train back to Toronto in some sort of a railway bank vault.

After many trips and stops around the Toronto area I found myself in the pocket of a Mr. Charles Rutledge, the equipment manager of the University of Toronto Varsity Blues football team. He must have thought I was lucky or something as he had an engraver mark, just to the left of King George, the initials "C.H.". For awhile I thought the engraver made a mistake and had meant to inscribe "C.R." until one romantic evening at a fine Toronto establishment when he gave me to his wife Helen.

The year was 1909 when the Varsity Blues team was pitted against the Toronto Parkdale Canoe Club in a football game. It was a chilly day in December and just before the game the referee came over and asked Charles if he happened to have a quarter or a half-dollar for the coin toss to start the game. Charles had no coins in his pocket that day so he asked his wife, who happened to be standing nearby. She handed me to him and a few moments later I "kicked off" the very first Grey Cup game! Perhaps I was indeed lucky for Charles and Helen, as the Varsity Blues went on to win the game 26 to 6.

After the game, his wife suggested he hang on to me for

luck in future games. He did so, but kept me in a safe corner of his drawer between games. This went on for six years, until WWI broke out. Charles was an early volunteer and, for luck, I was taken along and we slogged through the muddy trenches together and I was taken out and rubbed for extra luck from time to time. I must have had some effect as he came home in one piece.



His son Charles inherited his father's estate including me and I found myself moving to Vancouver. The son didn't consider me lucky, I suppose, and I was soon back in circulation around Vancouver and various parts of Western Canada and even the Yukon.

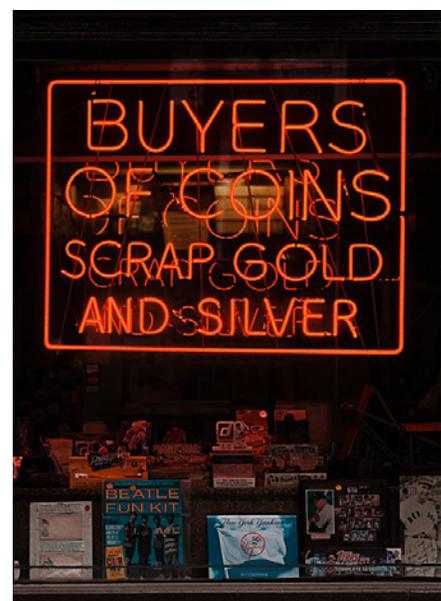
One day in 1932, when I had once again been deposited in a bank in Prince George, a couple of guys came in and held up the bank. The teller grabbed everything in his drawer including me, and the robbers were out the door before you could say, "buddy, ya got a dime?". They made

a clear get-away and for the next several weeks we hid out in a derelict cabin in the bush. I don't think they were caught as I soon found myself back in circulation banging around the country as before.

I continued in this manner through the rest the 1930's, the 1940's, and into the 1950's. By this time I was getting pretty worn down and somewhat thinner. The date had long gone but the C.H. was still clearly visible. In 1953 I suddenly came out of circulation and into a coin collection of a fellow living in Calgary.

And then at a coin show in 2005 much of the collection was sold to dealer at the Edmonton spring coin show. Two years later I was sold to a collector who took me back with him to Toronto.

Finally I was part of an estate auction and was bought by a Mr. V. in 2015. I remained with Mr. V. until 2018 when I was sold to a guy in Edmonton via an eBay transaction. These days I hang around with several other old worn out silver coins. We trade stories with each other, talk of the good old days, and wait for the day when we'll get traded or sold. Or, I've even heard that some of us will eventually end up in a dreaded "melt box". ☹️



2019

**Become a member of the club!**

A very affordable \$15.00 annual adult or family membership

We accept cash, cheques, and PayPal

Fill out the membership form on page 26, or on our [website:](http://www.EdmontonCoinClub.com)

[EdmontonCoinClub.com](http://EdmontonCoinClub.com)

**Thank-you for your support!**

**Edmonton Numismatic Society**



## Coming Events

February 13: ENS Meeting at the Royal Canadian Legion; 7:15 pm start.

February 15: Deadline for edited Planchet article submissions for 2019 Issue 2.

March 8: Issue 2 of the 2019 PLANCHET

March 9 & 10: ENS Spring Show at the Howard Johnson Hotel

March 13: ENS Meeting at the Royal Canadian Legion; 7:15 pm start.

To list your coming events, send them to [editor\\_ens@yahoo.ca](mailto:editor_ens@yahoo.ca)

## Edmonton Numismatic Society

# Canada Coin & Paper Money

*"Everything is Worth Something"*

## Ron Thompson

Purchase, Sell, Consign, Appraise

780.459.6868

[ronscoins@shaw.ca](mailto:ronscoins@shaw.ca)

PO Box 425, St. Albert, AB, T8N 7A2

CPMS



RCNA

Photo credit: Scott Cornwell

# 1¢ Coins

## Canadian Retail Coin Prices

by Dean Silver



**1¢ 1937**

(Photo: Canadian Coinoisseur)

Victoria 1¢	G 4	G 6	VG 8	VG 10	F 12	F 16	VF 20	VF 30	EF 40	AU 50	MS 60	MS 63
1858	58.01	81.07	104.12	116.34	128.56	145.88	163.20	210.78	258.36	368.05	657.35	2,366
1859 - 9 over 8 (8/9 OS)	35.29	47.09	58.89	71.24	83.60	109.24	134.88	157.97	181.06	284.52	551.38	2,267
1859	5.45	6.54	7.63	8.60	9.58	11.24	12.89	17.22	21.54	35.36	102.19	300.95
1859 - Low 9	6.81	8.17	9.53	10.75	11.97	14.04	16.12	21.52	26.93	44.20	127.73	376.18
1859 - DBL 5 (RP)	30.98	35.75	40.52	45.70	50.88	59.69	68.49	91.47	114.46	187.85	287.40	470.23
1859 - DBL 8 (RP)	30.98	35.75	40.52	45.70	50.88	59.69	68.49	91.47	114.46	187.85	287.40	470.23
1859 - DBL 1 (RP)	30.98	35.75	40.52	45.70	50.88	59.69	68.49	91.47	114.46	187.85	287.40	470.23
1859 - DBL 18 (RP)	32.34	37.38	42.42	47.85	53.28	62.50	71.71	95.78	119.84	196.69	312.95	545.46
1859 - DBL 85 (RP)	32.34	37.38	42.42	47.85	53.28	62.50	71.71	95.78	119.84	196.69	312.95	545.46
1859 - DBL 185 (RP)	33.71	39.02	44.33	50.00	55.67	65.30	74.94	100.08	125.23	205.53	338.50	620.70
1859 - DBL 1859 (RP)	40.51	47.19	53.86	60.75	67.64	79.35	91.05	121.61	152.16	249.73	466.23	921.65
1876H	3.84	5.08	6.33	6.82	7.32	8.44	9.56	13.41	17.27	36.85	83.18	262.70
1881H	3.59	5.42	7.25	9.36	11.46	15.09	18.72	25.58	32.45	53.16	122.60	-
1881H Triple N Regina	12.58	18.98	25.38	32.75	40.13	50.48	60.83	83.15	105.47	172.78	-	-
1881H RP N's	17.07	25.76	34.45	44.45	54.46	69.34	84.23	115.13	146.03	239.24	-	-
1881H Dbl Obv Letters	27.45	38.48	49.51	63.85	78.18	97.53	116.88	169.39	221.90	383.48	978.34	-
1882H Dbl Serif N's Obv 2	2.97	4.66	6.36	7.79	9.22	11.33	13.44	18.50	23.56	41.74	82.33	275.68
1882H DBL Serif N's Obv 1	3.51	5.27	7.03	8.53	10.03	12.53	15.04	20.05	25.06	43.17	89.00	282.36
1882H SGL Serif N's Obv 1	5.44	7.73	10.02	12.15	14.29	16.54	18.80	25.06	31.33	61.52	117.93	316.24
1884 - Obv 2	3.68	4.72	5.76	7.09	8.42	10.57	12.72	16.30	19.89	41.60	106.03	349.53
1884 - Obv 1	86.97	109.19	131.41	165.83	200.25	244.06	287.86	399.25	510.64	1,014	2,033	6,978
1886 - Obv 2	4.48	6.27	8.06	10.28	12.49	17.48	22.48	32.00	41.51	72.71	170.51	604.85
1886 Obv 1	12.38	14.28	16.17	20.49	24.81	34.13	43.45	65.59	87.72	155.19	322.90	1,224
1887	3.30	4.57	5.84	7.18	8.51	11.55	14.58	20.66	26.73	50.56	108.69	311.40
1888	2.68	3.90	5.12	6.33	7.54	8.71	9.88	12.92	15.96	28.93	69.49	214.20
1890H	6.26	9.17	12.07	15.03	17.99	22.10	26.22	36.86	47.51	86.18	177.05	456.55
1891 - LL LD	6.46	9.29	12.12	15.24	18.36	24.96	31.55	46.24	60.93	110.73	228.26	620.67
1891 - SL SD	40.14	56.14	72.15	83.89	95.64	116.61	137.58	176.48	215.37	311.36	499.99	1,585
1891 - LL SD	61.53	80.88	100.22	122.49	144.76	170.25	195.74	258.35	320.95	577.63	1,205	5,433
1892	5.01	7.18	9.36	12.24	15.12	18.89	22.67	26.57	30.46	62.08	114.14	375.66
1893	3.01	4.22	5.44	6.41	7.39	8.70	10.01	13.43	16.85	30.23	75.19	252.10
1894 - Thin 4	9.82	13.82	17.82	20.59	23.36	27.09	30.82	40.21	49.59	86.75	162.66	438.84
1894 - Thick 4	20.10	25.19	30.29	35.27	40.25	48.35	56.45	72.98	89.51	136.54	237.80	682.10
1895	5.01	7.01	9.00	11.62	14.24	17.52	20.79	26.05	31.30	62.08	109.13	355.77
1896 - Near 6	3.29	4.69	6.09	6.81	7.54	10.20	12.85	15.52	18.19	28.54	67.35	242.51
1896 - Far 6	27.81	30.87	33.92	36.99	40.07	46.04	52.02	65.66	79.30	120.20	250.42	642.74
1897	2.76	3.94	5.13	6.19	7.24	8.96	10.68	13.89	17.10	34.64	80.56	265.89
1898H	5.55	8.08	10.61	13.02	15.44	19.49	23.54	29.86	36.19	65.53	138.15	410.71
1899	2.99	3.95	4.90	5.48	6.07	7.27	8.47	11.62	14.77	31.19	68.79	186.15
1900H	2.78	3.69	4.59	5.30	6.02	7.27	8.52	11.06	13.60	25.72	53.14	122.29
1900	6.49	9.26	12.04	14.92	17.80	22.60	27.39	36.19	44.99	90.50	186.44	633.13
1901	2.61	3.65	4.69	5.24	5.80	7.01	8.22	10.91	13.60	25.23	52.01	130.65

Edward 1¢	G 4	G 6	VG 8	VG 10	F 12	F 16	VF 20	VF 30	EF 40	AU 50	MS 60	MS 63
1902	1.48	2.20	2.93	3.43	3.93	4.51	5.10	7.81	10.53	16.11	34.28	95.64
1903	1.48	2.20	2.93	3.43	3.93	4.55	5.17	8.10	11.04	18.71	42.64	114.09
1904	2.00	2.92	3.84	4.36	4.89	6.65	8.41	11.02	13.63	24.49	58.21	160.94
1905	2.98	4.40	5.82	6.70	7.58	8.95	10.32	13.41	16.49	30.25	72.88	199.17
1906	1.76	2.66	3.56	4.11	4.67	5.42	6.18	8.59	11.01	23.74	52.01	224.94
1907	1.99	2.89	3.79	4.41	5.03	6.15	7.28	10.32	13.36	27.79	54.57	242.51
1907H	12.07	15.30	18.54	22.45	26.36	33.72	41.09	54.44	67.79	118.24	253.40	788.58
1908	2.05	3.12	4.18	4.79	5.41	6.86	8.32	11.35	14.39	24.90	55.08	162.75
1909	1.35	2.02	2.69	3.24	3.79	4.38	4.96	7.79	10.62	18.69	39.83	139.26
1910	1.32	1.95	2.58	3.08	3.58	4.26	4.93	6.52	8.11	16.23	39.12	137.58

## DTS AVERAGE • 1¢ COIN RETAIL PRICES

George V Large 1¢	VG 8	F 12	VF 20	VF 25	VF 30	VF 35	EF 40	EF 45	AU 50	AU 55	MS 60	MS 63
1911	2.02	2.77	4.28	5.13	5.98	6.84	7.69	10.23	15.29	21.20	33.02	76.79
1912	1.95	2.66	4.12	4.83	5.55	6.26	6.97	9.67	15.08	21.56	34.52	87.04
1913	1.87	2.63	3.67	4.46	5.24	6.03	6.81	9.56	15.06	23.74	41.09	110.81
1914	2.04	2.97	4.13	5.04	5.95	6.85	7.76	11.86	20.05	28.75	46.15	125.23
1915	2.11	2.97	4.14	5.19	6.24	7.30	8.35	12.20	19.89	27.66	43.21	112.49
1916	1.70	2.39	3.15	3.75	4.35	4.95	5.55	7.12	10.27	15.21	25.08	87.80
1917	1.61	2.20	2.89	3.39	3.89	4.38	4.88	6.09	8.51	12.02	19.06	67.13
1918	1.61	2.20	2.89	3.39	3.89	4.38	4.88	6.09	8.51	11.91	18.73	66.90
1919	1.61	2.20	2.89	3.38	3.86	4.35	4.83	6.07	8.56	11.96	18.78	68.12
1920	1.62	2.25	3.03	3.56	4.10	4.64	5.17	7.39	11.83	16.94	27.16	110.97

George V Small 1¢	VG 8	F 12	VF 20	VF 25	VF 30	VF 35	EF 40	EF 45	AU 50	AU 55	MS 60	MS 63
1920	1.26	1.84	2.68	3.14	3.60	4.06	4.52	5.94	8.79	12.53	20.03	62.87
1921	1.43	2.35	3.62	4.76	5.91	7.05	8.19	10.63	15.50	30.12	59.36	295.09
1922	20.71	27.16	37.95	43.68	49.41	55.13	60.86	84.79	132.65	191.16	308.19	1,573
1923	39.65	46.96	58.77	65.85	72.94	80.02	87.11	120.85	188.34	265.39	419.48	2,880
1924	9.41	11.93	16.58	19.32	22.06	24.80	27.54	41.43	69.19	104.60	175.42	1,037
1925	33.72	38.64	48.73	53.00	57.28	61.55	65.83	83.57	119.07	182.11	308.19	1,361
1926	6.06	7.85	11.67	13.97	16.26	18.56	20.86	33.96	60.17	88.62	145.53	738.40
1927	2.20	3.35	5.56	6.90	8.25	9.59	10.93	15.71	25.27	39.10	66.77	290.11
1928	0.95	1.42	2.79	3.28	3.78	4.27	4.77	7.02	11.52	16.93	27.75	124.38
1929 - Low 9	0.94	1.41	2.76	3.24	3.71	4.19	4.67	6.47	10.09	15.84	27.34	104.68
1929 - High 9	20.74	32.24	45.53	51.15	56.78	62.40	68.03	78.88	100.59	150.04	248.93	805.09
1930	2.90	3.88	6.57	8.26	9.95	11.64	13.33	19.03	30.42	45.59	75.94	307.25
1931	1.54	2.16	4.17	5.30	6.43	7.56	8.69	14.20	25.23	38.78	65.88	238.75
1932	0.90	1.40	2.62	3.09	3.57	4.04	4.52	5.63	7.86	11.92	20.03	80.86
1933	0.90	1.40	2.62	3.09	3.57	4.04	4.52	5.68	8.01	12.18	20.53	85.57
1934	0.96	1.39	2.67	3.00	3.34	3.68	4.01	5.27	7.78	13.10	23.74	90.68
1935	0.95	1.38	2.57	2.92	3.27	3.62	3.96	5.27	7.89	12.87	22.84	77.79
1936	0.96	1.38	2.56	2.91	3.25	3.60	3.95	5.26	7.88	12.09	20.52	64.85
1936 - Dot obv King	70.69	128.84	224.91	275.69	326.48	377.26	428.04	525.06	719.11	907.81	1,285	3,087
NOTE:	A minimum of 48,769 1¢ pieces were held back in reserve at the end of 1936. Ref; 1936 Mint Report P.5 & P.7											

George VI 1¢	VG8	F12	VF20	VF25	VF30	VF35	EF40	AU50	AU55	MS60	MS63	MS64
1937	0.49	0.79	1.61	1.83	2.06	2.28	2.51	4.47	4.82	5.51	17.22	29.12
NOTE:	The four lower denominations were available at all Agencies of the Bank of Canada on the prescribed date. Ref; 1937 Mint Report P.7 & P.14											
1938	0.31	0.54	1.25	1.54	1.84	2.14	2.44	4.43	5.11	6.45	25.98	32.49
NOTE:	200 sets of coins dated 1937 were struck in 1938. Ref; 1938 Mint Report P.7											
1939	0.31	0.54	1.25	1.54	1.84	2.14	2.44	4.43	5.04	6.25	12.53	17.90
1940	0.25	0.46	0.95	1.25	1.56	1.86	2.16	3.32	4.18	5.90	12.07	19.73
1941	0.31	0.58	1.08	1.42	1.76	2.09	2.43	5.07	6.92	10.63	59.58	89.12
1942	0.25	0.47	1.08	1.41	1.74	2.07	2.40	4.69	6.48	10.08	60.59	87.61
1943 - Round colon dots	0.25	0.47	1.08	1.40	1.72	2.05	2.37	4.43	5.37	7.25	25.52	49.32
1943 - Oval colon dots	3.81	7.18	13.07	18.77	24.46	30.15	35.84	53.75	65.15	87.96	181.81	302.06
1944	0.30	0.53	1.18	1.50	1.81	2.13	2.45	5.03	7.93	13.72	85.42	181.97
1945	0.26	0.47	0.98	1.33	1.68	2.03	2.38	4.34	5.24	7.04	26.06	50.65
1946	0.25	0.46	0.94	1.24	1.53	1.83	2.13	3.93	4.71	6.29	16.15	27.81
1947	0.25	0.46	0.94	1.24	1.53	1.83	2.13	3.43	4.29	6.01	13.28	21.07
1947ML - Pointed 7	0.26	0.47	0.98	1.27	1.57	1.87	2.16	3.69	4.55	6.27	20.11	30.45
1947ML - Blunt 7	0.28	0.53	1.04	1.39	1.73	2.08	2.42	4.86	5.82	7.74	27.57	62.14
1948 - A to LRG denticle	0.28	0.52	1.01	1.32	1.63	1.94	2.26	4.26	5.28	7.31	38.40	84.31
1948 - A to SML denticle	1.58	4.29	8.78	11.09	13.41	15.72	18.03	31.39	45.55	73.87	250.63	496.24
1948 - A off denticle	0.33	0.63	1.25	1.54	1.84	2.13	2.42	3.54	4.57	6.64	46.42	89.48
1949 - A off denticle	0.25	0.47	0.96	1.27	1.58	1.89	2.19	2.86	3.55	4.95	8.01	19.20
1949 - A to denticle	7.64	12.14	17.51	20.88	24.25	27.62	30.99	45.77	56.73	78.64	251.92	493.12
1950	0.26	0.47	1.20	1.51	1.82	2.14	2.45	3.50	3.75	4.23	13.36	18.90
1951	0.26	0.47	1.20	1.51	1.82	2.14	2.45	3.50	3.84	4.51	16.12	34.69
1951 - Dot obv King	9.30	16.52	30.32	38.23	46.13	54.04	61.95	102.96	116.75	144.33	503.76	623.56
1952	0.26	0.47	1.20	1.51	1.82	2.14	2.45	3.48	3.82	4.50	11.86	19.37

# DTS AVERAGE • 1¢ COIN RETAIL PRICES

Elizabeth II 1¢	VG8	F12	VF20	VF30	EF40	AU50	MS60	MS61	MS62	MS63	MS64	MS65
1953 NSF Business Strike	0.05	0.10	0.15	0.25	0.35	0.55	3.17	5.47	7.77	10.07	12.37	42.38
NOTE:	The No Shoulder Fold (NSF) variation occurred unintentionally (in error). Ref; 1953 Mint Report P.8											
1953 SF	1.56	3.69	5.98	8.10	10.23	14.51	25.19	52.89	80.60	108.31	198.20	834.83
1954 NSF Business Strike	484.11	599.37	783.80	940.31	1,097	1,540	2,185	2,522	2,859	3,196	-	-
NOTE:	Proof-Like (PL) is an unofficial term used to describe specific "Visual Qualities" of a uncirculated (MS) coin.											
1954 SF	1.45	2.16	2.88	3.62	4.36	5.40	7.66	9.24	10.82	12.40	30.95	142.94
1955 NSF Business Strike	158.49	199.25	256.60	310.69	364.78	512.11	1,065	1,507	1,949	2,390	-	-
1955 SF Short Denticles	0.50	0.75	1.01	1.26	1.51	1.76	3.53	4.76	5.98	7.21	15.02	48.05
1955 SF Long Denticles	0.73	0.97	1.37	1.62	1.88	2.09	4.50	6.12	7.73	9.35	18.77	56.32
1956	0.06	0.11	0.17	0.28	0.39	0.61	2.59	3.36	4.12	4.88	10.35	39.04
1957	0.06	0.11	0.17	0.28	0.39	0.61	2.26	3.01	3.76	4.51	10.35	33.03
1958	0.06	0.11	0.17	0.28	0.39	0.61	2.26	3.01	3.76	4.51	10.35	33.03
1959	0.06	0.11	0.17	0.28	0.39	0.61	2.26	3.01	3.76	4.51	10.35	33.03
NOTE:	"The Numismatic Section of the Mint" is mentioned for the first time. Ref; 1959 Mint Report P.4											
1960	0.06	0.11	0.17	0.28	0.39	0.61	3.33	5.13	6.93	8.73	10.53	28.83
NOTE:	A coin packaging machine was designed and built. "It will be used to seal sets of uncirculated coin in plastic for distribution by the Numismatic Section". Ref; 1960 Mint Report P.10											
1961	0.06	0.11	0.17	0.28	0.39	0.61	3.33	5.51	7.68	9.85	12.02	26.83
NOTE:	Four coining presses were converted to strike two one cent pieces at a time. Ref; 1961 Mint Report P.14											
1962	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
1962 - Harp	2.01	2.51	3.01	3.51	4.01	4.54	7.52	9.19	10.86	12.53	35.09	103.51
1962 - Guitar	3.51	4.51	5.51	6.52	7.52	8.85	12.53	15.04	17.54	20.05	63.77	190.32
1963	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
NOTE:	To contend with the increased uncirculated coin demand, the Numismatic Section facilities were enlarged considerably by the acquisition of more space. Ref; 1963 Mint Report P.8											
1964	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
1965 - SB B5	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
1965 - SB P5	0.14	0.20	0.27	0.47	0.68	1.27	2.50	4.17	5.84	7.51	20.03	52.57
1965 - LB B5	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
1965 - LB P5	2.33	3.62	5.92	7.28	8.64	14.11	25.38	37.26	49.14	61.02	103.80	253.16
1966	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
1967	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
1968	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
1969	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83

Elizabeth II 1¢	VG8	F12	VF20	VF30	EF40	AU50	MS60	MS61	MS62	MS63	MS64	MS65
1970 thru 1979	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
1978 - Date doubling	0.32	0.64	1.28	1.92	2.56	3.21	6.41	10.71	15.02	19.32	31.61	55.23
1979 - Date doubling	0.24	0.48	0.97	1.45	1.93	2.41	4.83	7.74	10.66	13.58	22.10	38.60
1980 thru 1989	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
1983 - Near Beads	0.28	0.56	1.11	1.67	2.22	2.78	4.96	6.47	7.98	9.48	23.26	47.87
1985 - Pointed 5	2.14	3.17	4.44	6.39	8.33	11.11	17.54	22.67	27.80	32.93	43.18	75.76
1990 thru 1999	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
2000 thru 2012	0.06	0.11	0.17	0.28	0.39	0.61	2.01	2.78	3.56	4.34	9.02	26.83
2006P	0.26	0.52	1.05	1.57	2.09	2.62	5.08	6.73	8.38	10.03	17.54	35.09



## LOOSE CHANGE™

Buying/Selling Canadian Coins/Notes Free Appraisals

**BU Year Sets And BU Rolls Available**

Box 82  
St. Michael, Alberta  
T0B 4B0  
Tel/Fax(780) 896-2238

*Lonnie S. Whitrow*

lswitrow@hotmail.com

## BOB'S COLLECTIBLES

Est. 1975

Coins, Paper Money, Supplies, etc.

### ALYTH COLLECTIBLES

(403) 265-3121 · Cell: (403) 998-2123  
2808 Ogden Road S.E., Calgary, AB

**bobscollect@shaw.ca**

# \$2 2018 Armistice Varieties

by **Joe Kennedy**

(Photos by the author.)

The 2018 Armistice toonies might be hard to find. I have not personally found any of them yet in my pocket change, though a friend of mine received a colored one “in the wild” a couple weeks ago. I was fortunate to be able to get a roll of the toonies recently from a relative who lives near the Winnipeg Mint. An additional 10 were picked up at a coin exchange in Winnipeg.

In the roll, there were 14 unpainted coins and 11 coins with color. The [Royal Canadian Mint website](#) gives a total mintage figure of 1 million unpainted and 2 million painted two dollar coins.

Some interesting error/variety coins were found in the mix. Notably, the coins from the coin exchange appeared to be a slightly lighter red color than those found in the roll.



**Dark Red Color Poppy Variety (top left), Light Red Color Poppy Variety (top right), Unpainted Poppy (bottom left), Obverse design (bottom right)**



### Offcenter Black Ink

The black outline on this poppy is noticeably offset from the other colors. The black ink does not lie outside the textured frame, so maybe it is still “within spec”?



### Minor Offcenter White Ink

The white underlay color on this poppy is slightly offset. It can be seen peeking out under the lower right of the poppy outline. Though not normally visible, the white paint is applied first to enhance colors printed over top of it.

# Bei Georg, er, By George, Part 2

by Marc Bink

When we last left the story, our aging hero had just expired. The English were in one respect glad to be rid of a German or foreign king, but by the same token, were glad they weren't thrown into another succession issue. King George had left offspring. The new king made it easy on everyone too; they'd never forget his name, and the stationery didn't need to be changed because he retained the name "George".



George II Shilling – Old Head (1758)

## The Early Years

George II Augustus was born in Hanover in 1683 to George and Sophia of Hanover. He did not have the greatest of childhoods; his mother was banished to an internal exile after being more or less caught "in flagrante delicto" with a man who was never seen again after leaving her apartments. George apparently never saw his mother again. He would have been around 10 at the time. The resulting trauma induced deep uncertainty and probably coloured his future relationships with people.

He was reasonably educated for the time. His primary language was French, the language spoken by most of the royal houses in Europe at the time. He learned German at age four and then learned English and Italian. Being that he was German and expected to lead troops in

combat, he was also schooled in military history and battle tactics. In these he excelled.

George grew up as a typical 18th century German nobleman. Schooled in the arts of war, he wanted the accolades and the glory associated with campaigning and war. So when his father went after France and Flanders in 1707, he was chomping at the bit to go. But there was a problem; his father wouldn't let him go until he produced an heir. George August was more than a little peeved; but it finally seemed to encourage him to get on with his princely duties and get the job done. He had been married for two years by this point and he actually was permitted to marry for love (mostly as a result of his father's lousy marriage and his mother's subsequent exile). This didn't stop him from carousing

around. The weird thing was he let his wife know about all of the mistresses. There is no record as to what she actually thought of it, nor is there a record of her carrying on outside of the marriage. One could be pretty sure word had got out that the Hanover clan was not to be embarrassed or scorned. Caroline of Ansbach knew her place and stayed within it. One also has to remember that morals in the 18th century were nothing like those in the Victorian Age. In fact, these loose standards were the reason for the eventual backlash and creation of the rigid Victorian moral code in the 19th century. People had finally had enough with the very public philandering and with war being the "sport of kings" and wanted some degree of civility and peace. But this was not the case in the early 18th century.

George and his wife had plenty of offspring, so once the problem of succession was taken care of, his father permitted him to go to war. He acquitted himself admirably at the battle of Oudenarde at the head of the Hanoverian troops. He managed to even impress the British.

In 1714, George II accompanied his father George Sr. to England to assume the throne there when Anne died. He was invested as the Prince of Wales a few days after the Coronation. So now England finally had a King and an Heir. George II's wife Caroline followed a short while later, but left their children in Hanover. This probably suited George II well, as he had no patience for children, least of all his own.

George II was becoming more popular than his father the king, which did not suit George Sr. at all. A rift soon developed between the two that was never

quite healed. For a time, the king had his son and his wife banished from St. James Place, and the king kept their children. Needless to say, this didn't improve relations between them, and it was only very shortly before George I died in 1727 that they had reconciled enough to be in the same room together. It was a tradition that George II would continue with his own son after he was proclaimed king. While on the outs with the Palace, George II would continue in the political opposition, creating problems for his father and the government in general. One of these opposition members, Sir Robert Walpole, managed to use this to his advantage; he managed to get the king on his side and then urged a reconciliation. George II always assumed that Walpole had tricked him, and this was to create animosity between George II and his governments once he became king in 1727.

George I died just outside of Hanover in June of 1727. George II was now the king of the UK at age 43. Great hopes were placed on the new king, ones he could never ever hope to satisfy. He also inherited the title of Duke of Brunswick, Hanover, Lüneburg and Calenburg in Germany. He had been groomed for this job for most of his adult life. His first act as king was not to go to Hanover to attend his father's burial. His next act was to suppress the Will, which advocated for the responsibilities and territories of George I to eventually be split up. Both the Hanoverians and the British were not interested in splitting things up, they were content with the current arrangement and so was George. The Will was suppressed and eventually deemed unlawful, since George I did not have the legal power to personally determine his own succession.



**George II (1683–1760)**

This portrait was made between 1755–1757

## Proof Positive Coins Ltd.

### WE ARE BUYING!

- Pocket and Wrist Watches  
Cartier, Patek Philippe, Rolex, Vacheron,  
Omega, Breitling, Platinum, Gold, Silver or Steel – all  
makes and models
- Canadian & U.S. Gold and Silver Coins
  - Royal Canadian Mint Product
  - Scrap Gold & Silver
- Canadian & U.S. Paper Money

*“A Positive Choice  
in Canadian Numismatics”*



**PROOF POSITIVE COINS, LTD.**

*Sandy Campbell, Numismatist*

P.O. Box 369, Baddeck, NS B0E 1B0

Toll Free: 866-283-6715

Tel: 902-295-3007 • Fax: 902-295-3268

Website: [www.proofpositivecoins.com](http://www.proofpositivecoins.com)

Email: [ppc\\_limited@hotmail.com](mailto:ppc_limited@hotmail.com)

Life Member: RCNA 228 ANA 3496 APNA FUN CSNS

## The Coinage; Britain

After a monarch had died, the Tower Mint would usually recall all the coinage in the land and debase it by drilling a small hole in it and then count it all up to determine the wealth of the country and tabulate how much money was in circulation. Then it would be sent to melt and a new coinage created. This determined the new king's wealth and set the stage for what the government could spend. And since the king always needed money, he had to go to Parliament to ask for it; this was the practice that got the Stuarts into serious trouble in 1649. It seems this practice was far more common during the Hammered Coinage period up until 1670. After that point, it seems to have not occurred as often or was necessary. This was because of the inception of the Bank of England, which was then entrusted by the government to control the money supply. Now coins could circulate until their weight was deemed suspect, and heavily worn coins were then drilled and submitted to the Tower for replacement.

So when George II ascended the throne in 1727, there was close to 60 years' worth of coinage in circulation. And it still wasn't enough. The gold or larger silver denominations such as the ½ crown, crown and shillings were reasonably well represented, but the bulk of daily commerce in Britain was done in pennies and

half pennies. There was a chronic shortage of these coins and had been for over 100 years. The problem was twofold; British law required that the penny be made from fine silver. By the 1720s, it had become a mere sliver of what it was back when those laws were enacted in around 1000 AD. It was easy to lose a penny, it was only about 12 mm across. It could no longer be subdivided into ½ or ¼, those pieces just didn't make sense. So the likely solution would be to make a fiat-style coin out of a lesser metal, like copper or tin. The problem here was that the Tower Mint generated a profit above its operating expenses on seignorage, or skimming profits on the difference charged to the government for the precious metals consumed. There would be nothing to be made by the Tower Mint on producing copper or tin coins; it would have to be paid on a per contract basis and not seignorage. This required an Act of Parliament and invariably would be done on the cheap; the metal was always incorrectly priced, and Parliament didn't always pay its bills on time.

Half-pennies and farthings were struck in copper every year from 1730 until 1740, and then every couple of years after that ceasing entirely in 1754. The motif on the reverse was always the same, Britannia sitting on a shield looking left holding a laurel twig in the right hand,

and a sceptre in the left. These coins just about all circulated to absolute blanks. That is also reflected in current values; the lesser grade coins are pretty cheap and the ones in mint state are very pricey.

Silver coinage, from 1 penny up to a crown, was struck sporadically from 1727 until 1759. Some denominations, (like the penny) were struck every year, and others (like the crown) were only struck every 3 or 4 years or so. The same applied to the gold issues. There was no "pound" coin or a sovereign, the gold denominations were stated in Guineas, with 1 Guinea being equivalent to 1 pound, 1 shilling, or 21 shillings. Needless to say it made for some interesting transactions. There was a large run of silver and gold coins made in 1745-46 with "LIMA" under the truncation, these coins were made from loot stolen from the Spanish at Lima after the British reopened hostilities with the Spanish in 1739.

Currently the values for George II coins from Britain have remained fairly flat; there is a large supply of them because George II reigned for 33 years. Most of the gold issues are very expensive regardless of condition, but the real premium is in the condition of the coin, age being largely irrelevant. The silver issues suffered along with the copper in that they were circulated to

**MBA**  
**MARC BINK**  
**APPRAISAL**  
**SERVICES**

Phone: 780 271-1362  
E-mail: mbink@shaw.ca

**Marc Bink, CPPA**  
Appraiser

Marc Bink is a member in good standing of the CPPAG

**David Peter Coins**

Canadian Personal Property Appraiser

P.O. Box 4511  
Edmonton, AB  
T6E 4T7  
780-995-8199

worldcoin@gmail.com

blanks, rendering the supply of truly EF or better grade coins scarce and expensive. George II coins circulated in Britain's North American colonies. Here again, most were heavily circulated and worn down to blanks before being pulled. By that time, the American Revolution had begun and the Continental Congress was in dire need of cash, so a lot of coins that would have possibly survived ended up in the melt pot and were recoined into the new American issues or were

sold off in ingots. But, up until about 20 years ago, it wasn't uncommon to come across a much worn down 1/2 penny from the 1740s in a coin dealer's junk box, so a lot of them did survive.

The coinage issued during George II's reign in the UK was largely unchanged from the previous reign. Yes, George II's beady-eyed contenance now graced the coins, but the reverse was generally the same. There were modifications made

to crowns and shields, and the Tower or London Mint had issues with spelling and fonts throughout the reign. There are some interesting varieties as a result. But the major versions are: the "young head" made from 1730 until about 1745; the intermediate bust, used in the late 1740s; and the old bust, used from about 1747 until 1760. A quick way to tell the difference is that in the later versions George is has beadier eyes and has jowls.



**George II Half Penny (1749)**



**George II Shilling (1731)**



**George II Farthing (1736)**



**George II Half Crown – LIMA (1745)**



**George II 5 Guinea (1729)**



**George II Crown – Roses (1743)**

## The Coinage; German Domains

When George I died, George II became the Duke and Elector of Brunswick, Lüneburg, Calenburg, and Hanover. This state was one of the largest areas outside of both Prussia and Bavaria, and encompassed a large portion of what is now northwestern Germany.

As the Elector of Brunswick-Lüneburg-Calenburg-Hanover, he had some say as to what was depicted on the coins. George's portrait coins from Brunswick-Lüneburg-Calenburg-Hanover are also scarce and pricey. There are a couple that look quite a bit like their British counterparts except for the titles being slightly different and the portrait is subtly different. The lower copper denominations aren't too expensive, but they don't have a portrait. In fact, they use the infamous "Wildman" motif that

Brunswick was famous for. The billon coins are a bit more expensive, and then finally there are the silver ones with portraits that are the most desired and fairly scarce. There are a lot of denominations to choose from, from the cheapest pfennings to the silver Mariengroschen to the thaler coinages. This was a pre-decimal coinage that had its roots in the early medieval age. It was all rather confusing. The small-change German coinages are a little more common as they were extensively minted and heavily circulated. The actual mintage figures are all unknown, but there were three mints working and a number of different types of coinages being used concurrently. The Brunswick states were all trading states that had connections everywhere, so their money would have been

heavily traded and circulated throughout Europe.

The Brunswick states were part of the old Lower Saxon economic circle and shared the same denominations amongst themselves. The weights of these coins were similar to any other state's system, so they could be accepted fairly universally throughout the German speaking world. But not many found their way to England; the Bank of England and Parliament kept a close watch on the money coming in and leaving, ensuring that there wouldn't be a repeat of what happened in the early modern period where high-grade and well-made English coinage started replacing badly made local stuff, creating a major currency devaluation and threatening the English economy.

## George II as king of England

After George ascended the throne, he proceeded to break all of the expectations placed on him. In a lot of respects he was a lot like his father, preferring to let Parliament do its thing and only intervening when things affected him personally. The English were a rather

funny lot; on the one hand they wanted a king who'd allow self-determination, and on the other, they criticized him for allowing so much self-determination. It also didn't help that George's adult son finally came over from Germany and proceeded to set himself up in opposition to

the king's policies and wishes. Needless to say, George didn't differ much from his father in that he hated his offspring. It was so bad that whenever George left to visit Hanover (which he did in 1729, 1732, and again in 1735) he left his wife in charge of the Regency instead



## Writers Wanted!

Experience a new dimension in coin collecting!

Club members are encouraged to write an article for the *PLANCHET*:

- share your knowledge and enthusiasm for your collecting interests
- conduct some research into your collection
- receive the *Silver Maple Leaf Volunteer Award*, given to volunteer writers and become eligible for the *Reach for the Gold* draw at the end of every year.

**Edmonton Numismatic Society. Contact: [editor\\_ens@yahoo.ca](mailto:editor_ens@yahoo.ca)**



of his own son and heir. There were also family arguments over marriage too; George was busy negotiating with Prussia for a suitable match for his son, and in the end it only resulted in heightened tensions between Britain and Prussia (with the king's Hanoverian domains in the middle and very vulnerable). The Prince of Wales, Frederick, eventually married a princess from Saxe-Gotha instead. That solved a few issues, and resulted in the birth of a son, also named George, in 1738. (More about him in the next instalment.)

George's frequent trips to Hanover caused some friction between he and his British subjects and contributed towards his lack of popularity. The restart of hostilities with Spain in 1739 only contributed more to this. George was in Hanover again in 1740 and 1741 and contributed to the war effort more as Elector of Hanover than as King of England. George then committed British troops to the war effort in support of Maria Theresa's claim, only to find that the British hadn't fought in any European campaigns in over 20 years and were next to useless as a fighting force. George had to hire Danes and Hessians to train and equip his lot. He then set about reorganizing the British army and pushed for greater professionalism within the ranks but didn't get very far. George did become the last British monarch to lead troops into battle; he acquitted himself quite well, but this just encouraged more unpopularity in England, as the public there felt he was subordinating English interests for his Hanoverian ones. There was a lot of bad press, and people didn't really think the king's place was in front of an international body of troops, so George slinked back to London and set about trying to repair his image. He was not successful in this regard.

The next big test was when a group of Jacobins and Scots tried to re-establish the Stuarts in Scotland in what they thought was their "rightful" place. The threat of Stuart revival had never really gone away, and was felt more in Scotland where there was more sympathy towards the Stuart family. James Francis Stuart was the last surviving son of James II (Stuart)

and by rights would have been king, or, according to the French and their Scottish sympathizers, should be king. A lot of people never did recognize the Hanoverian Succession, and had tried to foment a rebellion in 1715 and again in 1719. They tried again 1746 with James Francis' son, "Bonnie" Prince Charles at the helm. They were moderately successful,



**St. James Palace, London, where the Prince of Wales resided**



**St. Paul's Cathedral, London**

first taking out British armies at Prestonpans and then heading south into Britain itself.

Then things started to go wrong, the first point being that Bonnie Prince Charlie's forces couldn't find any support in northern England. They retreated back to Scotland to regroup before moving south again. George's more militarily driven son, the

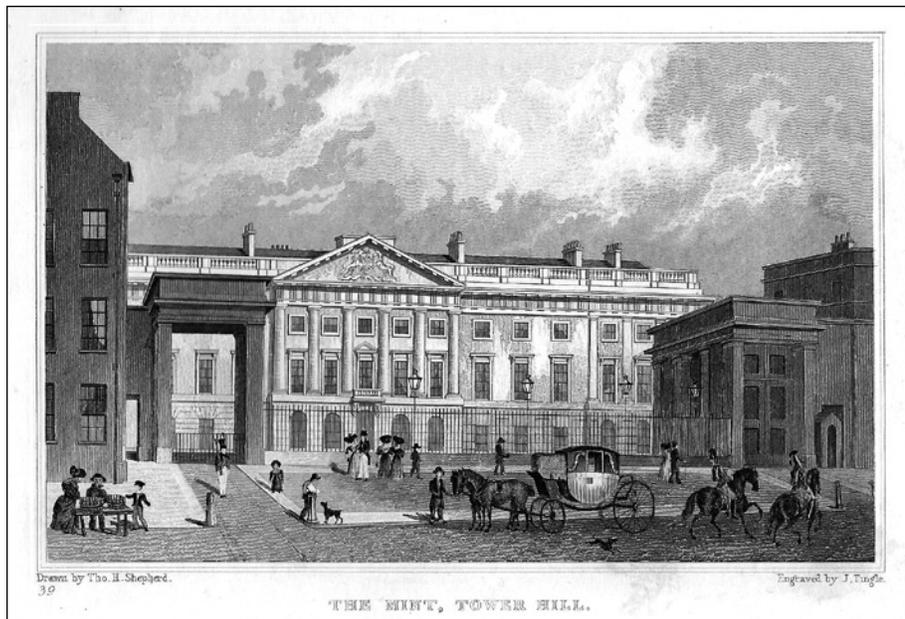
Duke of Cumberland (William) at the lead of the British Army, took them on at Culloden. This became the last battle fought on British soil; the rebel forces of Bonnie Prince Charlie were defeated and pretty much annihilated. This finally put paid to any Jacobean hopes of a restoration; Charles survived and fled to France where he eventually drank himself to death, forgotten

and scorned. George and the British government were ruthless in rooting out any Jacobean sympathizers or survivors. A lot ended up forcibly exiled to North America, which would eventually come to haunt a future generation of Hanoverians for different reasons.

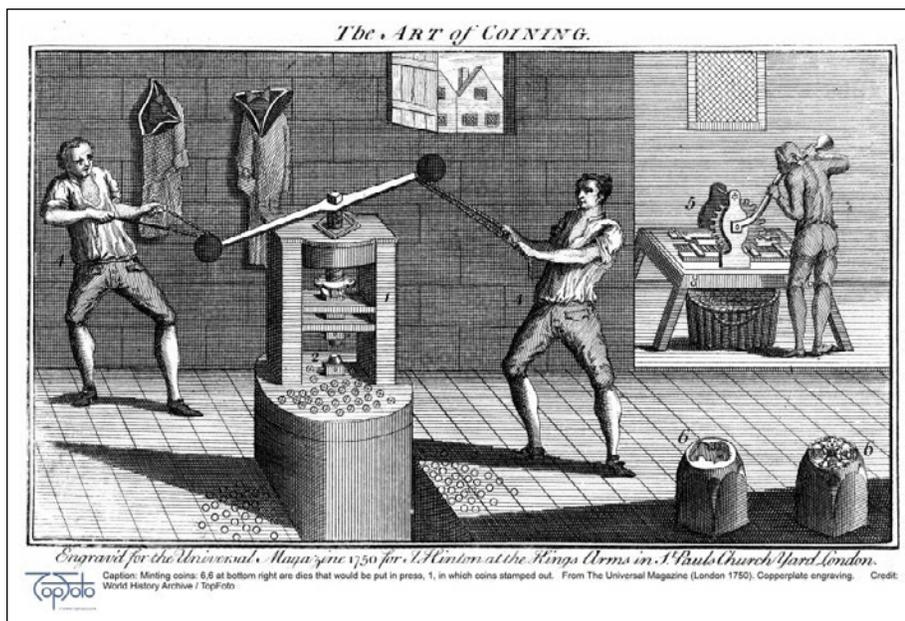
After Culloden, George pretty much settled in a routine where he was just unappreciated and unloved by all. In 1751, his son and heir, Frederick, died suddenly. George actually then tried to repair his relations with his family, but to no real avail. He set up a Regency for his grandson George who wouldn't come of age until 1756, just in case he died before then. In truth, he was probably wishing he had. (His wife had died in 1737 and he was inconsolable; he never remarried but had no shortage of mistresses after that point.) He was more or less alone and ineffective from 1751 onwards.

George never had much success in intervening in British politics. It seemed he always backed the wrong horse in Parliament. But that said, it didn't mean he didn't care or was a dullard like a lot of histories printed since then have suggested. George cared very deeply for his British subjects and their welfare. It's like anything though, the victors write the history books, and the losers get lost in the misinterpretation or the spin. It looks like that is what happened to George II.

With 1756 came the Seven Year's War, or the "French and Indian War" as it's known here in North America. George aligned himself with Prussia, and the French aligned themselves with the Russians and Austrians. A lot of fighting took place in Europe, North America, and the Far East. This was the first real world war. Here in North America, French dreams of an empire



**The Mint, Tower Hill (1830)**



**Minting Coins (1750)**

were defeated when Montreal was taken in 1759. A curious result of that was a British series of very artistic, stylized and strange medallions that were issued to commemorate the fall of Montreal, including one that featured a very svelte and trim appearing beaver. It's hard to figure what the engraver was thinking, except that he'd probably never ever seen a real beaver before. That was possibly the first appearance of a beaver on a coin.

During the Seven Years War, in another bout of trying to improve familiar relationships, George sent his son the Duke of Cumberland to command some troops in Germany. Once Hanover got invaded, the stakes suddenly got higher as the British were outnumbered and outgunned. George permitted the Duke to negotiate a settlement on his behalf. The Duke

negotiated and concluded an armistice which somewhat favoured the French; George was furious and claimed that his son had "ruined me and disgraced himself"... and again, George ably demonstrated how to "Win friends and influence people".

George was a patron of the arts and literature but had absolutely no interest in any of it, preferring to play cards or hunt. He was viewed by most as "faintly ludicrous", but left enough written material behind to dispute that. He was involved, and he did have an informed opinion, but, as stated previously, was in many cases unable to gain or maintain support in Parliament. He had a raw temper, but was a man of his word. He was sincere, and tended to wear his heart on his sleeve and speak his mind, and for that he is considered by most to be boorish and inconsequential. He permitted and

supported the rule of law and constitutional government, and encouraged his people to be more self-determining.

George II died a very miserable old man on the 25th of October in 1760. He died on his toilet of an undiagnosed aneurism at the age of 77. He was buried in Westminster Abbey, and had left instructions that the side walls of his and his wife's coffin were to be removed so the remains could "mingle". So far, he is the last and most recent British monarch to be buried in Westminster Abbey.

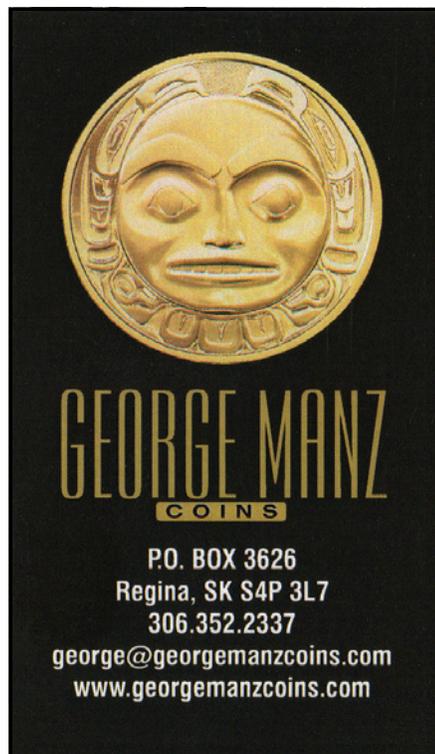
As it was, in 1727 when George II ascended the throne, very high hopes were placed on the next man who would be king, coincidentally also called George. The Hanoverians were nothing if not original. That story is next... 



**Montreal Taken Medal (1760)**

One of a series of medals issued commemorating the "Taking of Montreal" in 1760 from an old auction catalog featuring the Ford collection. Mr. Ford had the full series, and some of them are quite stunning as well as incredibly expensive. They were all allegorical in nature, and some took liberties with their impressions of Nature. Most of this series was almost bizarre in its subject matter and interpretation. In this case, the lowly beaver makes its first appearance on a coin; unfortunately the artist missed the mark on this, it is rather apparent that he had never seen a beaver. It almost looks as though the poor thing had suffered some form of depilatory torture and is coming up to take its revenge.

So would it be safe to call this the "castor calvitium" variety, or the "bald beaver" variety? Well, in retrospect, maybe not...



**GEORGE MANZ**  
COINS

P.O. BOX 3626  
Regina, SK S4P 3L7  
306.352.2337  
george@georgemanzcoins.com  
www.georgemanzcoins.com

# An Aureus of Julius Caesar

by **Terence Cheesman**



Issuing a gold coinage in the ancient world was a very unusual step, since it usually heralded a period of extreme stress. The Romans were no different. Two of the earliest Roman gold issues are linked to the titanic struggle between Rome and Carthage called the Second Punic War, or the Hannibalic War. The next set of issues related to activities of the Roman general and later dictator, Faustus Corneilius Sulla, who minted various aurei while he was a rebel general fighting in Greece and then as Dictator of Rome. These coins were over 10.7 grams, too heavy to fit any contemporary weight standard. The monetary equivalency between this coinage and the silver denarius is unknown, but it is likely to have been something like 25 silver denarii to 1 gold aureus, the system which we know was adopted during the late republic and early empire.

The next gold issue came from Julius Caesar. Caesar's position was very similar to that of Sulla. He had just completed a very successful campaign to conquer most of what, today, we would call France. This had garnered him wealth, fame and power, along with many powerful enemies in the city of Rome. Roman politics, especially at this time, was particularly nasty, in fact quite lethal. It was most likely that Caesar would have faced criminal charges once he had relinquished his command in Gaul and become a private citizen. One of the perks of public office in Rome was immunity from prosecution, so Caesar wanted to move from his current political office to a new one without a break. This was technically illegal, but it probably could have been accomplished with the right help. But that was not to be. His former ally, Pompey, could have helped but Pompey had been won over by his opponents and was unwilling to assist.

Caesar naturally turned to his army. The Roman army at this time was made up mostly of men with very limited means. The state provided them only with their basic equipment, while their commanders paid them. Caesar could afford to pay them well. Much of the rich spoils of his very successful military campaign in Gaul ended up in his hands and he spent a lot of it on his army. So it was not much of a surprise that the soldiers were enthusiastic supporters of his cause. With a single legion, on January 10th, 49 B.C., he crossed the Rubicon river, the boundary between his province of Cisalpine Gaul and the city of Rome, and marched on the city, thus igniting his rebellion. Though his army was much smaller than that of his opponents, they were combat hardened veterans and the surprise of his invasion, as well as the speed of his movements, forced his opponents to flee. This initiated a five year long civil war from which Caesar emerged victorious.

During the war, Caesar minted a number of different coin issues, mostly silver denarii. Normally, operation of the mint was left to magistrates who were at the lowest rung of the Roman political system. Caesar does not appear to have used this system, relying instead on his right as a military commander to mint money. Thus all the early issues minted by him during the civil war have only his name to legitimize his coinage. This might have been a tacit acceptance of his status as a rebel against the legitimate government at Rome. However, by 46 B.C. this all changed. Caesar won a series of brilliant campaigns that routed his enemies and he had become master of the Roman state. It was at this time he initiated a massive issue of gold aurei (see illustration). The obverse features a veiled head of a female right. On some of the more finely executed dies this is much more apparent, but on most, including mine, this is not obvious. The female

**County Coins and Collectibles**  
 (Division of 1649592 Alberta Ltd)



**Howard Gilbey**  
 Auctioneer



Licensed & Bonded  
 Alberta # 339839

P.O. Box 120  
 Ardrossan, AB  
 T8E 2A1

---

**Seeking Quality Consignments of**

- ✓ World and United States paper money
- ✓ Canadian Chartered Banknotes
- ✓ Dominion of Canada, Band of Canada notes
- ✓ Historic medals, pre-Confederation and merchants tokens
- ✓ Ancient, Medieval, World and US coins
- ✓ Maritime and Canadian coins
- ✓ RCM product
- ✓ Pre-1989 vintage and classic sports cards and sports memorabilia
- ✓ Vintage and classical pop culture items

Call: 780-298-0434  
 Email: taneri9@mscnet.ca



**CHANTOU INTERNATIONAL**  
 COIN & STAMP LTD.

OFFICIAL  
 ROYAL CANADIAN MINT  
 DISTRIBUTORS

[www.chantou.com](http://www.chantou.com)



**Giuseppe Iorio**

Tel: 604-321-7447  
 Tel & Fax: 604-321-7876  
 6537 Fraser St, Vancouver, BC V5X 3T4  
 giorio@telus.net

---

**BUY / SELL  
 GOLD / SILVER**



Canadian & Foreign Coins  
 Paper Money & Stamps  
 Coin & Stamps Supplies

is usually thought to represent the goddess Vesta, the wife of Jupiter and the matriarch of the gods. The obverse legend reads C. CAESAR COS TER. Roughly translated, this would read Caius Caesar Consul for the third time. The Roman consul was one of two annually elected magistrates who held supreme power. The reverse features a Lituus, jug and ax. These are emblematic of the chief priesthood of the Roman state, an office held by Caesar. The reverse legend reads A. HIRTIVS P.R. Essentially this would translate as Aulus Hirtius Praetor. The office of praetor was essentially the second highest rank in the Roman Republic, just below that of Consul. Thus praetors were the most senior subordinates to the consul. They had both military as well as civilian/judicial roles. Aulus Hirtius was a trusted subordinate of Caesar. He was a legate to Caesar in 58 B.C., and in 50 B.C. he was sent by Caesar on a diplomatic mission to Pompey as a part of an effort to avert the civil war. He was with Caesar when he crossed the Rubicon and seems to have served him in various capacities until he was elected praetor in 46 B.C.

Caesar's issue of gold aurei was massive, likely one of the largest issues of gold coins ever minted by the Romans. Over one hundred dies are known which could have produced about two million coins. Examples of the coin type appear frequently at auction with almost 400 examples seen over the last 15 years, compared to the aurei of Sulla which have been seen fewer than 20 times in the same period (counts from 'acsearch.info'). Caesar's achievement is the more remarkable as Hirtius most likely produced this massive coinage in about a year, or even less. Many of the dies exhibit designs which are executed very carelessly. Scholars have

often mused as to what was the source of bullion for this coinage. In an article titled "Are platinum and palladium relevant tracers for ancient gold coins", Maryse Blet-Lemarquand, Sylvia Nieto-Pelletier, Florian Tereygeol, and Arnaud Suspense analysed these extremely minuscule trace elements which were found in Celtic gold staterers from France in the first century B.C. and compared them to those found in the aurei minted by Hirtius. They found that they were the same or similar. Since the Celtic coinage was much less pure than the Roman aurei (probably near to 50% pure versus approximately 98% pure for aurei) it seems that the Romans melted down the Celtic gold coins, refined the metal and then used the almost pure gold in the new coins. If all of the gold of the Hirtius issue came from the spoils from the campaign in Gaul, it would suggest that over four million Celtic coins were destroyed.

The rationale behind Caesar's coinage is less clear. The general consensus is that the coinage was produced in 46 B.C. when Caesar had been involved in two campaigns roughly at this time. The first was the campaign in North Africa which started sometime in October of 45 B.C. and ended on February 6 with the Battle of Thapsus. The second was the campaign in Spain which started in November, 46 B.C., and ended on March 17, 45 B.C., at the Battle of Munda. The armies under the command of Caesar were somewhat larger than what he normally commanded, numbering some eight legions as well as cavalry and auxiliary troops. This suggests that the men under his command totalled something like 40,000. Thus, it is possible that his gold coinage was needed for one, or even both, campaigns. After the North African campaign, Caesar minted a massive issue

of silver denarii, which he labeled specifically for donations and gifts. These coins were probably issued to the victorious soldiers after the campaign in Africa. They would also advertise Caesar's generosity to his supporters and the larger Roman audience. The gold coins could have augmented this gifting.

There could also be another reason for Caesar's aurei, though I have to admit this is very speculative. These coins which had a nominal weight of 8 grams were roughly the same weight and size as the gold staterers minted by the Macedonian kings. In fact, the only regular issues of gold coinages in the ancient world were those minted by the kings of Persia and the later Greek kings. It would have conferred some prestige on Caesar to be able to mint such a coin in the numbers that he did, using bullion that he had captured during his campaigns in Gaul. These coins would advertise both his wealth and power. In the later part of the first century B.C., Rome was by far the dominant power in the Mediterranean. This meant that many of her citizens were staggeringly wealthy. His gold coins would be seen as a welcome means of both storing wealth and paying for large obligations. The aureus was a denomination whose time had come. It was later produced in large numbers until the reign of Constantine I, when it was replaced in 324 A.D. by the lighter and even more numerous solidus. However, Caesar's aurei may have been one of the factors leading to his assassination. As noted above, only royalty had produced gold coins in number and Caesar was accused of monarchical aspirations. I cannot help but to think that, in some way, his precious coinage may have convinced some Romans to the validity of those accusations. 

# Edmonton Numismatic Society

## Membership Form

Membership in the Edmonton Numismatic Society is good for one calendar year (i.e., January to December) and includes a subscription to THE PLANCHET.

New    Renewal   Date: \_\_\_\_\_   *Please print clearly*

Name: \_\_\_\_\_

**E-Mail:** \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Province/State \_\_\_\_\_

Country: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Telephone: ( \_\_\_\_\_ ) \_\_\_\_\_

- Regular Member (18 years and over) – Canada, USA\*, Foreign\* ..... \$15.00
- Junior Member (Under 16 years) – Canada, USA\*, Foreign\* ..... \$5.00
- Family Membership ..... \$15.00  
(spouse and/or children at home 16 years and under)
- Life Membership\* ..... \$300.00
- Canada Only** (not available for USA or Foreign addresses)  
**If you would like THE PLANCHET mailed, please add** ..... +\$25.00

All membership applications are subject to approval by the Edmonton Numismatic Society. An official receipt and membership card will be issued upon approval.

\* Please note: Distribution of the official society publication, THE PLANCHET, to all Lifetime Members, USA and Foreign addresses is available via e-mail and website download only.

### Application / Payment Methods



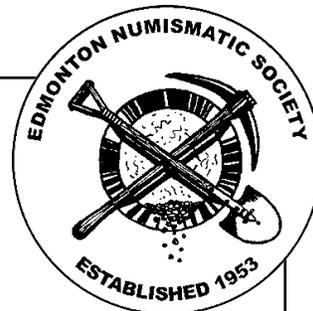
Mail this form (along with payment) to:  
Edmonton Numismatic Society  
P.O.Box 78057, RPO Callingwood  
Edmonton, Alberta, Canada T5T 6A1



Secure online payment with PayPal at  
<http://www.edmontoncoinclub.com/membership.htm>



See us at a monthly meeting or semi-annual show.



# Part 1: XRF – Digging Into the Metallic DNA of Ancient Gold and Electrum

## A Netherworld of Elements Revealed

by **Wayne Hansen**



**Three Earliest Electrum Coins**

Obverses of Trites from Ionia and Lydia (circa 650–600 BC)

It was a revelation recently when another enthusiast suggested that I should have the metal content of my ancient electrum coins analyzed at a local coin shop. In November, I had taken nine shiny globules out of the bank for a display of the first Greek coinages and decided to do a quick photo of them on top of a coin box. I sent the photo to a few friends because the array of sizes, colors and designs looked so pretty. At the same time, I wondered how the color of each coin might be related to its specific alloy mix. When I heard that the coin shop had a desktop machine capable of doing detailed x-ray analyses, I took all nineteen of my gold and electrum items to the shop in two batches. This little hoard included some of the first struck coins from 650–625 BC, later Asia Minor electrum pieces, Persian, Carthaginian and Macedonian gold from the 5th to 3rd centuries BC, plus Celtic and Dacian gold items from the late 1st century BC. One coin was a duplicate geometric trite, so there were eighteen completely different coins. It could be assumed that ancient gold coinages, particularly the alloyed electrums, are composed of a variety of natural and/or refined metals, so I wasn't surprised when tests showed many of the coins contained three, four or five different elements. Some metal percentages were smaller than expected, and some were merely traces. I was surprised, however, when a number of coins had as few as one or two metals in their profile. Although I initially had doubts about the possible accuracy of the shop's equipment, the actual results were quite consistent with general assumptions and some reports I had seen about the composition of similar coins. I came away with a good deal of respect for the data.

## Preliminaries

The analysis idea didn't seem too plausible at first. I had heard an off-hand comment that XRF (x-ray fluorescence) machines give inconsistent results, at least for silver coins. I also wondered how a portable machine could be seriously accurate. On the other hand, I had seen academic papers where researchers had used such machines to test archeological specimens, including silver coins. Several papers examined types and amounts of extreme trace metals in gold to find out where the metal was originally mined (sometimes quite distant) and to establish relationships among groups of coins. Moreover, fluorescence machines are routinely used in various industries and commercial shops to test production metals, jewelry and bullion for precious and non-precious content, so they must have some level of accuracy for those purposes. My main consideration was that, even if the detailed analyses were off a bit, knowing the relative amounts of metal from coin to coin would be useful. There was no real downside, regardless.

There would be some advantage to including only gold (AV) and electrum (EL) coins in the review, since, with an immutable gold base, they might be less prone to surface porosity, contamination and encrustation. It was also going to be interesting to consider correlation of color to metal content in both the pure and alloyed issues, as well as the role of surface toning to current appearance. In my experience, electrum, and possibly gold coins, do tone over time, such that rubbing can expose high points.

There wasn't much prospect of finding consistent alloy composition in the earliest precious coinages, since most would

have been made by completely independent authorities. This was especially true for 'Greek' colonial coins, where each city was its own state. Add to that, the vagaries of uneven sourcing of ores and the primitive nature of early metal refining. However, we should not underestimate the ancient peoples. There is ample evidence that even most of the earliest electrum coins used some form of refined/manipulated metal. Gold was valuable and there was an advantage in controlling how much was used in each coin, whether made by a ruler or a wealthy merchant. The precise proportions only mattered for trading states, however, when coins migrated out of the home territory, and precious metal exchange equivalency became an issue. Later on, when the Macedonians, Carthaginians and Romans created empires, refining was more, well... refined, and we would expect that metal purity/alloy content would have been more closely standardized.

Where gold stops and electrum starts is probably debatable – modern 'gold' can even be 8, 9 or 10 karat, though it is often not alloyed with silver (in which case it would not be electrum). Then there is the matter of trace elements in the alloys. Surprisingly, some ancient coins are made from fairly pure gold (99% plus, or even 100%). However, most ancient gold and gold-alloyed specimens contain some amount of a secondary metal and tiny amounts of trace elements (usually well below 1% each). The XRF machine seemed to be quite reliable at finding specific traces, so I'm assuming the reported amounts were present in the samples. Trace elements can be used at times to establish the geographical source of the ore or establish similar sources for different

coins. They may also say something about the efficiency of the refining technology used and/or whether placer gold was added from a local river. Even samples from different parts of a source ingot could produce different results in the individual coins made from it, since early metallurgy would not likely have provided a homogeneous alloy mix. Regardless, similar characteristics of precious metal purity and trace impurities between coins could indicate an affinity between the original batches of metals used, even if the coin was struck in different locations and periods.

The initial results from my two test batches were so encouraging that another local collector contributed several other coins from the later Macedonian and Roman eras, plus some archaic types, a Syracusan gold coin and a Carthaginian electrum example to the study. Some of these were included in the main group charts, while other, more duplicate coin types were placed in corroborating listings below each chart. We tested a wide range of very high quality ancient coinages, which would not often be found elsewhere in one place (I hesitate to use the term 'museum quality', since museum items can be chosen for type as well as quality, and since many smaller museums or collections might have lower grade examples). In the full article, have tabulated twenty-eight primary, unique specimens in three main groups, along with their photos, plus I have also noted test results from the other corroborative issues for comparison. This was obviously not a rigorous scientific analysis, but we did use a science-based, metal analysis machine for the purpose. This report gives us a generally sound snapshot of relative metal compositions within

the limits of available samples, available equipment/assistance and available time. In other words, it is a fun attempt to answer nagging questions about what ancient Euro-Mid East mints, wittingly or unwittingly, mixed into their precious coin alloys back then.

Because of the length of the final article, it has been split over two issues of *The Planchet*. The introduction and Group One results (Archaic Electrum) are covered in this issue as Part 1. Part 2 will address the other two main categories of ancient gold and electrum (see below).

Taken as a whole, the article describes an ever-changing pattern of precious metal use for a small selection of extremely important and historically significant coin issues. It is largely based on one example of each coin, with some corroborating items, so this is really just a peek into the topic. I won't comment much on the results, since the data is clear, and I have provided graphs and labels for proportions of the three main metals for each of the illustrated examples. Beyond mining and refining, the main questions revolve around whether similar alloy composition from mint to

mint might allude to similar supply sources, whether the alloys produced at each mint or for each ruler were consistent, whether there was a trend in the purity of alloys from era to era and whether specific conquests and resultant plunder led directly to coin recycling and possible additional refining by the conquering powers. Answers are difficult or impossible with this limited survey. There is much here, however, if the reader wishes to consider the data and then explore further aspects of the ancient metal analysis story elsewhere.



## The Equipment

The equipment used for the analyses was available at a local coin and collectible shop in Edmonton, Alberta. It is a portable, countertop Olympus GoldXpert XRF machine as seen in Figure 1. It analyzes overall metal content, along with the purity and fineness of precious metals, with one push of a button. It is a non-intrusive and non-destructive test, only penetrating a very short distance into the surface, and it takes only 10–15 seconds for an initial analysis. Results are listed on the attached screen using each element's proper scientific code, including karat value and percentages of gold and all other metals present. It can also apparently detect whether an item is gold plated (collectors of high esteem/expensively purchased items may want to be wary of this feature).

In terms of its scientific rationale, the machine's x-ray beam excites molecules of the alloy metals and detects minute disruptions in their atomic structure. I saw this short description at [bruker.com](http://bruker.com): "XRF is an acronym for x-ray fluorescence, a process whereby electrons are displaced from their atomic orbital positions, releasing a burst of energy that is characteristic of a specific element. This release of energy is then registered by the detector in the XRF instrument, which in turn categorizes the energies by element." The process is used in hand-held units as well, which is useful where industrial testing of raw materials for refining and fabrication is required. The machines have also been used by academic researchers wishing to study the nature and context of archeological finds in the field, in museums or elsewhere (including ancient coins).

**Figure 1 – X-Ray Fluorescence Machine**



**Figure 1 – The machine used was an Olympus GoldXpert XRF similar to this. According to the spec's, it weighs 10 kg (22 lbs) and has a 4W closed beam x-ray tube.**

**Figure 2 – An Arrangement of Earliest Coins**



**Figure 2 – Earliest Greek Electrum Coins (650–500 BC) –** Here is a re-creation of my impromptu snapshot taken of these nine little beasties while preparing for a display of earliest Greek coins. It seems fairly obvious which have the most gold, but how does precious content relate to their age and location, and what other metals were used? Colors may be slightly enhanced digitally but they are colorful in hand and the colors are relative in any event. . Results for the first test batch, described in Figure 3 as Group One, includes these coins plus a Kyzikos hekte of roughly the same period. (Photo by the author and collection of the author.)

## **A. Group One: Earliest Period – Greek Electrum**

Group One test results are shown in in Figure 3, including nine electrum coins I had used in a recent display of the earliest Greek coins – three large trites (1/3rd staters), followed by four hektes (1/6th staters) and two 1/24th staters – plus I added a tenth coin for Kyzikos when my review expanded. Except for a

hekta from Mytilene, located off the western coast of Asia Minor (Turkey), the tested coins all come from south-central and coastal areas of southwestern Asia Minor, a hotbed of coin innovation. All ten coins (nine are shown together in Figure 2) were struck at or near the beginning of the world's first

coin production. Small, type-less electrum globules, with a rough punch, may have been made beforehand, but they are usually not considered to be actual coins, because there is no apparent type or mark of an issuing authority.

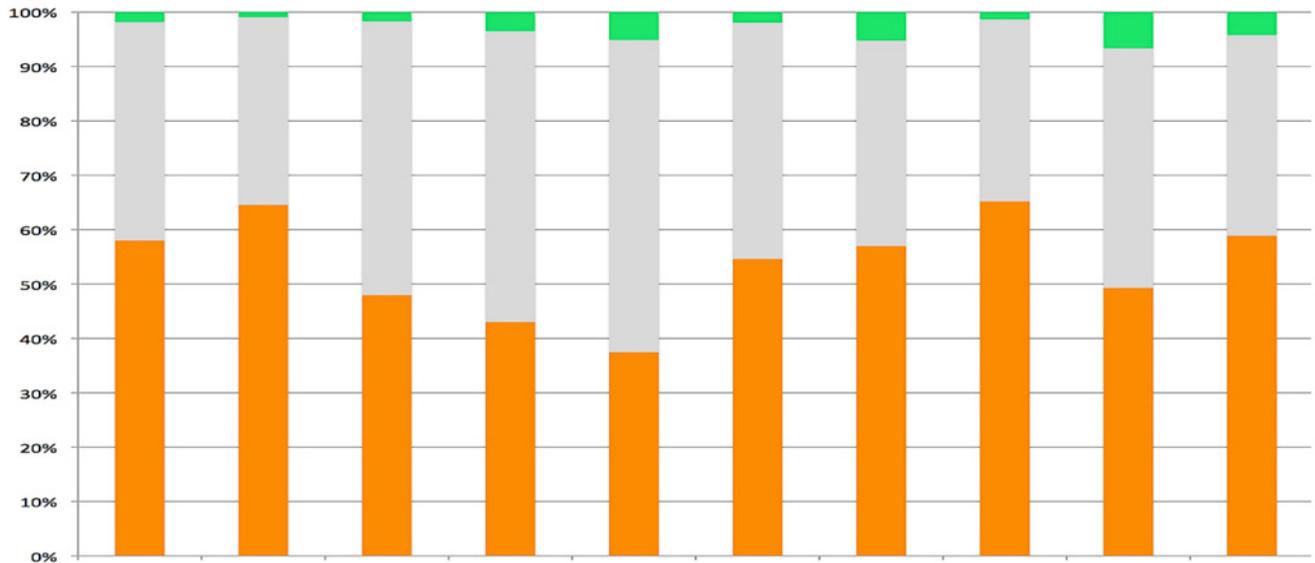
## Results for Earliest Electrum

Figure 3 includes the summary table of detected values, above which is an accompanying bar chart visually illustrating the proportions of the three main

elements usually found in each featured coin (gold, silver and copper). Eight similar archaic coins were also tested and summarized to see how they

compared to the tabulated coins – these corroborating results are listed below the main chart.

**Figure 3 – Metal Composition of Group One Coins**



	Early Electrum - Percent Metal Content (%)									
	1	2	3	4	5	6	7	8	9	10
	Ionia	Ionia	Ionia	Ionia	Ionia	Lydia	Ionia	Ionia	Lesbos	Mysia
	<b>Pebbled</b>	<b>Striated</b>	<b>Phanes</b>	<b>Geometric</b>	<b>Ketos</b>	<b>Alyattes</b>	<b>Phokaia</b>	<b>Erythrai</b>	<b>Mytilene</b>	<b>Kyzikos</b>
	Trite-4.65g	1/24-0.56g	1/24-0.57g	Trite-4.65g	Hekte-2.24g	Trite-4.73g	Hekte-2.60g	Hekte-2.58g	Hekte-2.55g	Hekte-2.60g
Dates (BC)	(650-600)	(650-600)	(625-600)	(circa 600)	(circa 600)	(circa 600)	(circa 560)	(550-500)	(521-478)	(500-475)
<b>Gold</b>	58.02	64.55	47.94	42.97	37.33	54.57	56.76	65.09	49.21	58.88
<b>Silver</b>	40.16	34.53	50.27	53.39	57.24	43.42	37.66	33.41	44.06	36.90
<b>Copper</b>	1.82	0.92	1.71	3.53	5.11	1.91	5.20	1.34	6.64	4.22
<b>Lead</b>	--	--	0.08	0.11	0.13	0.10	--	0.16	0.09	--
<b>Bismuth</b>	--	--	--	--	0.19	--	--	--	--	--
<b>Iron</b>	--	--	--	--	--	--	0.38	--	--	--

**Figure 3 –** Coins shown in the table are illustrated by number after the Group One Comments. They are all early coins from Asia Minor, minted in Greek colonial cities except for the #6 Alyattes coin struck by a powerful tribal king in centrally located Sardis. Being electrum, the predominant gold-silver mixes were expected.

## Corroborating Test Examples for Group One

These duplicate/related coins were tested for comparison, though dates and/or types for similar coins may differ. Metals: (G) Gold, (S) Silver, (C) Copper, (Ld) Lead, (Ir) Iron, (Ni) Nickel and (Ga) Gallium.

Geometric EL Trite	circa 600 BC	(G) 44.74	(S) 51.95	(C) 3.24	(Ld) 0.07	
Geometric EL Trite	circa 600 BC	(G) 43.09	(S) 53.18	(C) 3.55	(Ld) 0.18	
Alyattes (Lion) EL Trite	600–546 BC	(G) 55.84	(S) 42.82	(C) 1.27	(Ld) 0.07	
Ionia (Swastika) EL Hekte	600–550 BC	(G) 58.00	(S) 39.33	(C) 1.85	(Ni) 0.47	(Ld) 0.35
Erythrai (Herakles) EL Hekte	550–500 BC	(G) 52.29	(S) 45.48	(C) 1.21	(Ni) 0.62	(Ga) 0.40
Kyzikos (Dog) EL Stater	500–450 BC	(G) 50.44	(S) 47.15	(C) 1.76	(Ga) 1.12	(Ni) 0.53
Phokaia (Omphale) EL Hekte	circa 387 BC	(G) 46.48	(S) 46.99	(C) 6.11	(Ir) 0.31	(Ld) 0.11
Mytilene (Satyr) EL Hekte	377–326 BC	(G) 36.78	(S) 59.35	(C) 3.50	(Ni) 0.31	(Ld) 0.06

## Comments on Group One Coins

These coins are all from the southwestern corner of Asia Minor, and they are all electrum (EL), but even in one district like Ionia there is significant variation in gold/silver content. There were apparently no common standards among the (mostly) Greek colonial minting cities, except for rough weight, and they basically operated independently before the Persians invaded in 534 BC. The five earliest coins, except for the #3 Phanes coin from Ephesos, do not have an assigned city or authority, and some coins may even be from the same location. The coins are grouped more by general weight standard rather than type or content. In fact, no one really knows whether a civic authority might have struck them, or perhaps even individual merchants using a personal alloy formula. Nonetheless, each issue would have had to be good enough and reliable enough to ensure the coins would be accepted in commerce. My #2 Striated coin, 5mm in diameter, appears to have a tiny test cut on its edge, so 'trust me' didn't work even then.

Being electrum, all of the coins have a good percentage of silver in the alloy – that is the definition of electrum. The percentage of gold varies from 37

to 65%, which is a bit surprising, but it helps to account for the wide variation in coin color. It is tempting to say that some of the earliest coins, particularly the #2 Striated, may have a high gold content because they used alluvial gold from local rivers (I used to say the striations represented wave markings in the fine silt of the river bottom). However, the current view is that most such coins used some level of refining of the metals, so that the resultant coins were roughly standardized for the time and place – perhaps also to allow their value could be manipulated. With that said, the efficiency of refining was probably uneven, and the availability of source metal varied. One gauge of variability is the number and variety of trace metals in the alloys. Seven of the ten coins have these trace amounts, but each of these elements is generally well below 1%. Trace metals could also indicate that some proportion of naturally sourced gold might have been added to refined alloys. Similarities of these amounts from coin to coin could lead to speculation that the source material used might have been shared in some fashion, whether raw gold, refined alloy/metal or previously struck coins.

One research article mentioned that only gold and copper actually contribute color to a gold alloy. Silver, nickel, lead, etc. are all basically white-ish. As well as being pretty, gold and silver are exceptionally malleable, and they combine easily in all proportions. Copper, used a lot in modern coins, reduces malleability while adding color and hardness (over 12% is too hard for coinage). Metallurgical studies note the effect of adding trace metals to a manufactured gold alloy, mimicking what was found in natural or incompletely refined ancient gold. Nickel and zinc make the alloy harder and more durable. Lead is a problem, as it makes gold brittle in very small doses, even at 0.01%. Bismuth is related to lead; it is white-ish with a pink tinge, and it also is brittle and crystalline. Gallium is a very light metal, like aluminum, occurring naturally as a compound in zinc and bauxite ores (pure Gallium melts in your hand at 30°C). Iron is unusual as a trace element (as in coin #7 from Phokaia) and could merely be a slight surface contamination.

The highly variable fineness of the gold content throughout this early study period would seem to nix any possibility that there might have been a

steady devaluation of the alloys over time. That is, if the dating is right. Broadly speaking, the dates should be relatively OK, given the fabric and design of the coins, however there is room for dispute. Some mints like Kyzikos maintained older styles and the archaic punch for longer periods. Uneven sourcing and mixing of alloy metals in production would have caused some level of difference within an issue, plus some of the listed corroborating coins from the same mint were produced in different decades or centuries. One rule of thumb for the electrum is that the earliest coins will have a natural, globular form with one or two punch(es) on their reverse, leaving rounded edges around the punch(es), indicating it is still a globule. Later issues will likely have more of an evenly flattened reverse around its punch(es), showing the globule had been flattened at some point, either before or during the strike.

The only non-Greek coin, the #6 Alyattes tribal issue from Sardis, displays an average electrum composition. It is a very popular coin type, minted before the Persian invasion and just prior to, and during, the time when King Kroisos (Croesus) began striking the first separate gold and silver issues. A second, corroborating Alyattes coin (listed underneath – not pictured) has a pale greenish tint. It has been cleaned and could be from a different metal batch, since the reverse punches are identical to the illustrated coin, which is golden. As a side note, the ancient Greeks referred to electrum coins as 'green gold', and even today pale green alloys for jewelry are made with known proportions of gold and silver.

Among the 600 BC and later coins, there is an amazing consistency of results among the three tested Geometric trites

(#4 plus two corroborating) and between the two tested Alyattes trites (#6 plus one corroborating). This goes a long way to verifying the accuracy of the XRF machine, especially since they were not all tested on the same day. The low gold value for the #5 Ketos coin (similar to the corroborating Mytilene) and the high gold content of the #2 Striated and #8 Erythrai coins were both very surprising. I don't have any possible explanation, although much might come down to the wealth of the issuer, the purpose of the coinage for wider trade (or not) and the availability of component metals. The Ketos coin is extremely rare and may have had very limited intended use. The gold content of the second, corroborating Erythrai hekte (not pictured) is significantly lower, which, based on style, means it was likely a later issue of the same mint.

### Group One – Greek Electrum Coins



**1. Ionia – Uncertain – Pebbled EL Trite**  
650–600 BC; 12.8 mm, 4.65g

- Among first ever coin types.
- Previously very rare; few now available.
- Fresh, bright, mid to full gold color.
- Recent hoard, lustrous, little toning.

**2. Ionia – Uncertain – Striated EL 1/24 Stater**  
650–600 BC; 5.0 mm, 0.56g

- Among first ever coin types.
- Scarce to rare all denominations.
- High gold content; rare incuse reverse design.
- Full, dark gold color with good toning.



48.0 50.2 1.7

**3. Ionia – Ephesos – Deer EL 1/24 Stater**  
625–600 BC; 7.0 mm, 0.57g

- Iconic ‘Phanes’ deer badge.
- Rare; Especially nice lattice reverse.
- Only medium gold content – bit of lead.
- Full, dark gold color, considerable toning.



43.0 53.4 3.5

**4. Ionia – Uncertain – Geometric EL Trite**  
circa 600 BC; 12.8 mm, 4.65g

- Distinct lined designs and complex punch.
- Rare to very rare all denominations.
- Low to mid gold content – bit of lead.
- Low to mid ‘electrum’ color, little toning.



37.3 57.3 5.1

**5. Ionia – Uncertain – Ketos EL Hekte**  
circa 600 BC; 10.2 mm, 2.24g

- Extraordinary designs with sea monster.
- Rare; contrast in forms.
- Low gold content and extra copper.
- Low to mid ‘electrum’ color.



54.5 43.4 2.0

**6. Lydia – Sardes – Alyattes Lion EL Trite**  
circa 600 BC; 13.5 mm, 4.73g

- Mid-date version of popular early electrum.
- Full lion head/globular form; scarce.
- Medium gold content – typical electrum.
- Full gold color, considerable toning.



56.7 37.7 5.2

**7. Ionia – Phokaia – Helmet EL Hekte**  
circa 560 BC; 11.2 mm, 2.60g

- Unusual soldier-occupied helmet design.
- Rare; seal opposite to normal placement.
- Good gold content; some copper and iron.
- Low to mid ‘electrum’ color, some toning.



65.1 33.4 1.3

**8. Ionia – Erythrai – Herakles EL Hekte**  
550–500 BC; 10.9 mm, 2.58g

- Early issue with retro style obverse/punch.
- Scarce type; recent hoard find.
- Very high gold content with some traces.
- Full gold color and luster, good toning.



49.2 44.1 6.6

**9. Lesbos – Mytilene – Lion EL Hekte**  
521–478 BC; 10.9 mm, 2.55g

- Popular lion electrum from Aegean island.
- Unusual incuse reverse punch; not scarce.
- Medium gold content and extra copper.
- Mid to high gold color, good toning.



58.9 36.9 4.2

**10. Mysia – Kyzikos – Nude Hero EL Hekte**  
500–475 BC; 11.3 mm, 2.60g

- Early issue from prolific electrum mint.
- Less common humanoid figure; retro punch.
- High gold content – typical metal mix.
- Full gold color, considerable toning.



**To Be Continued**

With all the coins tested and the heaps of fascinating text, this part of the article has only been able to include the Preliminaries and detailed

results for Group One (Archaic Electrum) coins. It is necessary to bump the detailed results for Group Two coins (Persian, Carthaginian, Macedonian and

Sicilian) and Group Three coins (Celtic, Dacian and Roman) to the next issue, to be published in *The Planchet*, March 2019. Stay tuned for Part 2...

## In Closing...

It is sobering to think about the untold number of slave laborers who moiled in countless dank tunnels with only candles and rough hand tools, chipping at ore seams and hauling the heavy rubble to crude refineries for stoking and processing into precious coin blanks. All this under the same sun and moon we now enjoy mostly for recreation, travel and, of course, romance. Fortunately, the ancient coins that were produced so primitively can be breathtakingly beautiful at the same time, especially if they have that hint of GOLD. ~~☹~~

## End of Part 1

## Notes and Acknowledgements:

1. Analysis Assistance: I would like to thank South Edmonton Coin & Currency Ltd (southedmontoncoin.com) for use of its XRF machine. Jamie, Leigh and Matthew provided valuable expertise and assistance in the testing of these samples.
2. Collections and Photos: All coin photos are by the author. Pictured coins in this article are from the collection of the author. All listed corroborating coins are from the collection of Terence Cheesman, except the first of the two geometrics listed, which belongs to the author.
3. The chart and graph above were prepared by the author, using only actual data recorded.
4. All comments are casual observations by the author based on some understanding of ancient numismatics and a brief study of related metallurgical information. They are offered only to potentially aid in interpreting the data and could be superseded by more informed research.

### Quotes on Analysis

*There's a need to dig up the past and analyze it.*

— Michael Cimino

*When analytic thought, the knife, is applied to experience, something is always killed in the process.*

— Robert M. Pirsig

*Now, analysis, the breaking of the wholes into parts, is fundamental to science, but for judging works of art, the procedure is more uncertain: what are the natural parts of a story, a sonnet, a painting? The maker's aim is to project his vision by creating not a machine made up of parts but the impression of seamless unity that belongs to a living thing.*

— Jacques Barzun

*The intellectual is constantly betrayed by his vanity. Godlike he blandly assumes that he can express everything in words whereas the things one loves, lives, and dies for are not, in the last analysis completely expressible in words.*

— Anne Morrow Lindbergh

*In the final analysis, our most basic common link is that we all inhabit this small planet. We all breathe the same air. We all cherish our children's future. And we are all mortal.*

— John F. Kennedy

*Apply analysis when appropriate, but keep it on a short leash when joy beckons.*

— Alan Cohen



# Coin Varieties

The Many Names for Doubling

by **Joe Kennedy**

C W O H E A V Y S H I F T P J N  
 P I V O T E D I S T O R T E D W  
 L K R E E N T E R E D E S I G N  
 D M M C R E P U N C H E D N W R  
 I E X P A N D E D E N T R Y I O  
 S D T D I M E N S I O N A L A T  
 T I S E O R E E N G R A V E D A  
 E U N H R U E C T R I P L E O T  
 N M T U I I B S H S W I N G U E  
 D S Y B J F O L R A O J K D B D  
 E H S H I F T R E E N T R Y L G  
 D I E E S P R E A D C I X Q I R  
 O F F S E T X Z N T A U C U N X  
 K T R O C K I N G T I T T A G X  
 M O D I F I E D S J R O E D L A  
 R E T R A C T E D K Y Y N D G S

Collectors of variety coins look for design elements that appear to have a double image. Doubling is often most noticeable on the lettering of the legends or on the date of a coin. There are many causes of doubling and it can be hard to distinguish between the different types. In the early years of Canadian variety coin collecting, the various causes of doubling were little understood, so some colorful names and misnomers were in use.

- |               |                |            |               |
|---------------|----------------|------------|---------------|
| design        | doubling       | pivoted    | rocking       |
| deterioration | entry          | punched    | rotated       |
| die           | expanded entry | quad       | shift entry   |
| dimensional   | heavy shift    | recut      | shift reentry |
| distended     | hub            | reengraved | spread        |
| distorted     | mechanical     | reentered  | swing         |
| double        | medium shift   | reentry    | triple        |
| doubled       | modified       | repunched  |               |
| double dated  | offset         | retracted  |               |

Answer to the Puzzle Page from the Dec. 2018 issue of the Planchet





# DIVERSE EQUITIES<sup>INC.</sup>

Stan Wright



- Bullion
- Coins
- Jewelry
- Diamonds
- Rare Coins
- Coin Sets
- Watches
- Paper Money

## Diverse Equities, Inc.

Box 61144 Kensington P.O.

Calgary, AB, Canada T2N 4S6

Phone: (403) 230-9321

Fax: (403) 274-3828

Email: [stan@diverseequities.com](mailto:stan@diverseequities.com)

Web: [diverseequities.com](http://diverseequities.com)