

August 2018



MONTANA GEOLOGICAL SOCIETY NEWSLETTER

Vol. 62 No. 9



Inside this Issue:



P2 / PRESIDENT'S LETTER

2019 Elections are quickly approaching, & Read on for an investigation into the Best Choice Problem.



P4 / MT GEOLOGY

Don't forget to consult the MGS Road Log database located on the MGS website before taking your final summer road trips!



P6 / MBMG

October is quickly approaching, and with it, the 4th Annual Mining & Mineral Symposium.



P8 / RMAG

Mark your calendars for November's Core Description Workshop & register now for discount pricing!

Upcoming Event:

Sep 12 - MGS Luncheon; Allen Glazner (*see page 5*)

Contact Us:

mtgeo.org / montanageologicalsociety@gmail.com

Add our email address to your contacts so your Newsletters & Luncheon announcements don't end up in Spam!

Find us on 

PO Box 844
Billings, MT 59103

President's Letter

Membership,

I'd like to start this month by reminding everyone that we will be having elections very soon. If you would like to be included on the ballot for any of our officer positions and haven't done so already, please email us or speak to an officer. We plan to have the candidates announced in the September newsletter. Elections will be done online and next year's officers announced in the October newsletter.

For fun this month, I'd like to share with you what I think is an interesting problem commonly called the Secretary Problem. It deals with decision making and finding an optimal stopping point when choosing between multiple options. It has also been referred to as the Sultan's Dowry Problem or the Best Choice Problem.

The classical formulation of the problem is stated as follows: someone is tasked with filling a single position with the best of n known number of candidates. The candidates are ordered randomly and interviewed individually. After the interview, the candidate is either hired or rejected and candidates cannot be recalled. The strategy to maximize the probability of choosing the best candidate is:

Reject the first r candidates. Then choose the next one that is better than all the previous candidates. Using $r = n/e$, where e is the Euler constant (~ 2.7183), the probability of choosing the best candidate is $1/e$ or approximately 36.8%.

This method of decision making is actually fairly common in real life. Imagine choosing a restaurant on vacation. People often walk past the first few restaurants and then choose the next restaurant that seems nicer than the ones they've passed up. Experimental psychologists have observed people in these sorts of scenarios and found that in practice their choice for r is less than n/e , suggesting they made a hasty decision. It seems hunger wins over decision theory. More seriously though, this might be explained at least in part by the cost of evaluating candidates or alternatives when encountered sequentially. Hope you found this interesting as well.

Thanks for reading,

Felipe Pimentel
MGS President

2017-2018 MGS Officers

President	Felipe Pimentel	352-514-3607
Vice President/Speaker Coordinator	Sarah Friedman	406-896-5931
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Past President	Kevin Chandler	

Officer Elections Are Coming Up!
Watch your inbox for your ballot

Who's Who of the MGS

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Don French
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AAPG-ROCKY MOUNTAIN SECTION

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Alternate: Don French
Foundation: Rob Diedrich 303-830-5875

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Field Trips:
Gary Hughes 861-2072

University Liaison:
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Publications:
Duncan McBane 252-3170
Montana Oil & Gas Fields Update:
Jim Halvorson 656-0040

PUBLICATION SALES

Doretta Brush 259-8790

NEWSLETTER EDITOR

Jessica Renstrom 208-2504

*Don't expect
perfection from
geologists.*

*They all have their
faults.*

*Have something geological to sell, give,
or find?*

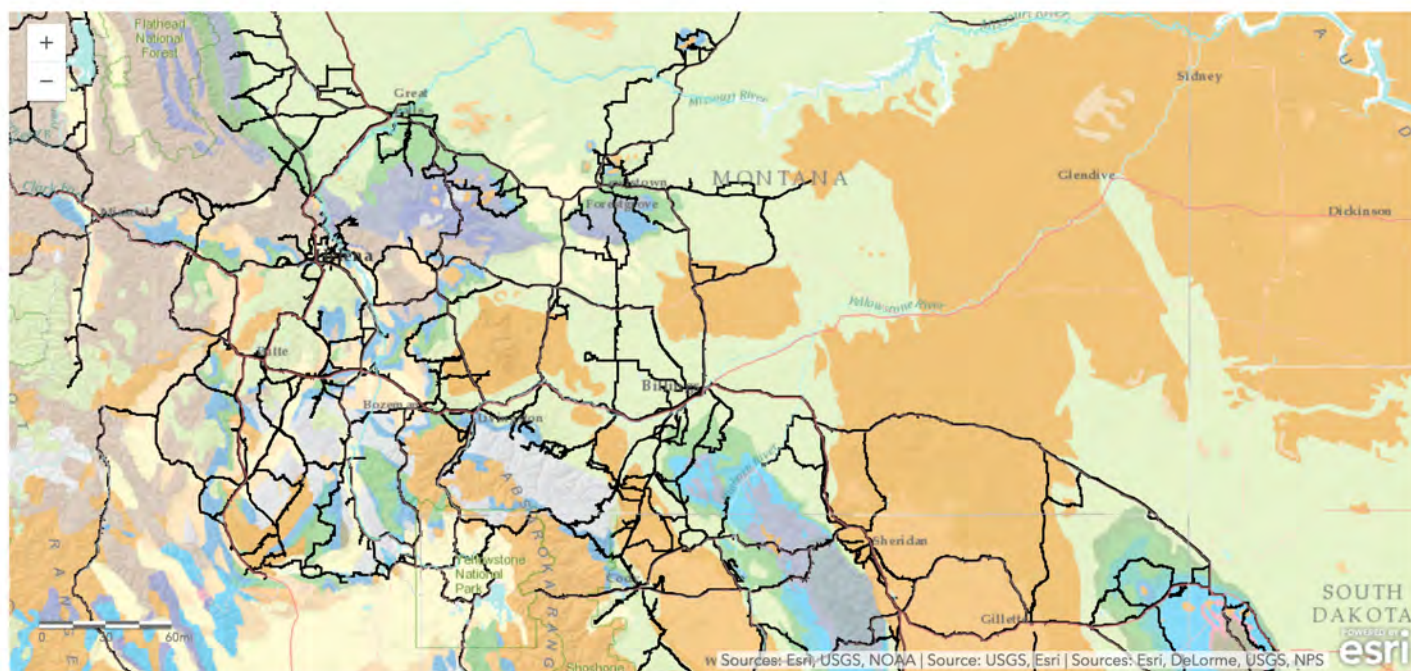
Place a free ad in our MGS Classifieds!

Contact the Newsletter Editor for more information.

Planning your August road trips?

Don't forget to consult the
MGS Interactive Road Log map
before you go!

To find a wide variety of road logs covering the entire state of
Montana and areas of Wyoming, Idaho, & Canada, visit:
<http://mtgeo.org/resources/road-logs/>



MGS Luncheon Meeting
Wednesday September 12th, 2018
12:00 PM at the Billings Petroleum Club

Save the Date!

RSVP – montanageologicalsociety@gmail.com

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**Check out the MBMG’s
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At the link below, you’ll find a story map of
Sapphires in Montana by Yiwen Li, inspired by and including
much of the work of Dick Berg.

<https://mbmg.mtech.edu/storymaps/MontanaSapphires.html>



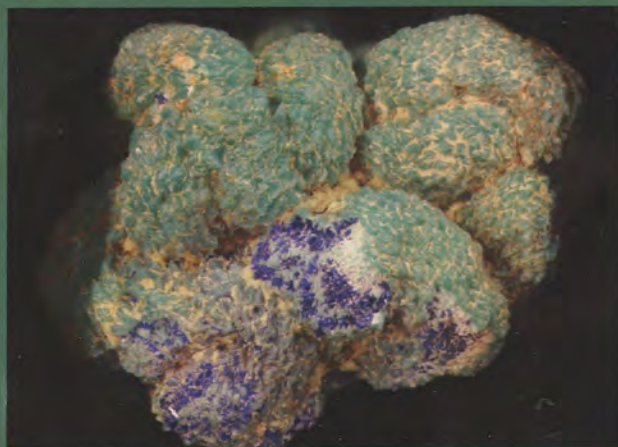
Do you have photos of past MGS events, MGS
members, or Montana geology?

If so, we’d like to see them!

For a chance to have your photo featured in
the MGS Newsletter & MGS Facebook page, please
submit your photograph(s) and full name to
montanageologicalsociety@gmail.com



SAVE THE DATE!



4TH ANNUAL MINING AND MINERAL SYMPOSIUM

OCTOBER
10-13, 2018

BUTTE, MONTANA

FOR MORE INFORMATION, SEE OUR WEBSITE:
WWW.MBMG.MTECH.EDU



TALK MINERALS IN BUTTE, MONTANA: THE RICHEST HILL ON EARTH

The 4th Annual Montana Bureau of Mines and Geology Mining and Mineral Symposium will provide a forum where professionals, students, and amateurs interested in mineralogy and economic geology can share knowledge about mineral occurrences in the northern Rocky Mountain Region. The forum includes oral presentations, poster sessions, a student poster competition, and field trips.

The MBMG will formally publish the Symposium Proceedings. If you are interested in submitting an abstract or paper, please contact:

Stanley Korzeb
Economic Geologist
406-496-4171
skorzeb@mtech.edu

Kaleb Scarberry
Geologist
406-496-4743
kscarberry@mtech.edu



Front photo: Chrysocolla pseudomorphs after azurite with some unaltered azurite microcrystals, Leonard mine, Copper Cliff district, Missoula County, Montana. Above: malachite microcrystals from Copperopolis. Photos courtesy of Michael Goble, Aurora, CO.

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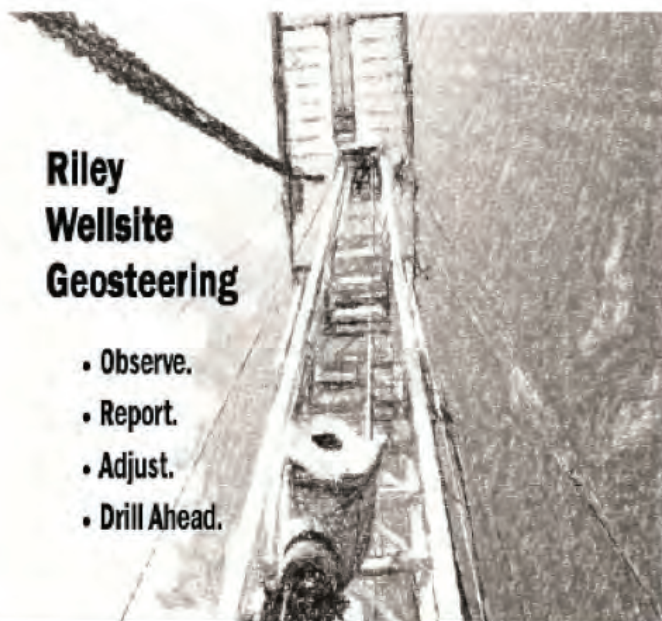
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**To get the RMAG member rate,
call or email Kathy Mitchell-Garton
at 303-573-8621 x1 or
kmitchellgarton@rmag.org**

**November 5-6, 2018
USGS - Denver Federal Center**

Register online at www.rmag.org

Price: Member - \$350

Non-member - \$400

Student/Unemployed - \$175

RMAG Core Workshop

The Art of Core Description

**A 2-Day Hands-on Training in Siliciclastic & Carbonate
Core Description for Reservoir Characterization**

Junaid Sadeque & Ali Jaffri

This is a 2-Day course in which participants will learn the technical specifics of core-description evenly distributed between siliciclastic and carbonate environments. The primary objective of this hands-on core workshop will be to help participants learn how to identify facies and depositional environments from core-interpretation, and predict reservoir geometry and connectivity. The training will be accomplished through a combination of class-room lectures and hands-on core description sessions. Participants will learn the best practices/workflows for tying core-derived stratigraphic data with porosity-permeability, fluid properties, XRD and other relevant data for comprehensive reservoir characterization.

email: staff@rmag.org phone: 303.573.8621

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MONTANA GEOLOGICAL SOCIETY

PUBLICATION	QUANTITY	PRICE	TOTAL
2006 Montana Oil & Gas Fields CD		\$65.00	
2006 AAPG Datapages - MGS Publications DVD		\$180.00	
2006 AAPG Datapages - MGS Publications DVD (MGS Member price)		\$150.00	
2000 50th Anniversary Symposium		\$20.00	
1999 Thrust Systems of the Helena Salient		\$20.00	
1998 8th Int'l Williston Basin Symposium		\$20.00	
1998 8th Int'l Williston Basin Symposium Core Workshop		\$20.00	
1997 Big Horn Basin Symposium		\$20.00	
1997 MGS-TRGS: The Edge of the Crazies		\$20.00	
1997 AAPG - Rocky Mtn. Section Meeting / Abstract Volume		\$10.00	
1996 AAPG - Rocky Mtn. Section Meeting / Abstract Volume		\$10.00	
1993 Energy and Mineral Resources of Montana		\$20.00	
1991 6th International Williston Basin Symposium		\$20.00	
1991 Geology & Horizontal Drilling of the Bakken		\$20.00	
1991 AAPG - RMS Field Trip: Beartooth Mountains		\$7.50	
1991 AAPG - RMS Field Trip: Eagle Sandstone, Billings		\$7.50	
1991 RMS Field Trip #1 Nye-Bowler Linemont		\$7.50	
1991 Sequence Stratigraphy of Eagle Sandstone		\$7.50	
1990 Bakken Workshop Short Course Study Notes #1		\$10.00	
1989 Geologic Resources of Montana		\$20.00	
1986 Geology of the Beartooth Uplift		\$20.00	
1985 Montana Oil & Gas Fields		\$20.00	
1971 Stratigraphic Names of Montana		\$10.00	
1969 Economic Geology of Montana		\$20.00	
Shipping and Handling charges - \$5.00 per CD/DVD \$8.00 per book			
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