



NMSR Reports

The Newsletter of the
New Mexicans for Science and Reason

NMSR Reports, David E. Thomas, Editor, 1201 Avenida de Chamiso Pl., Socorro, NM 87801 © 2020

FEBRUARY MEETING:

NEW MEXICANS FOR SCIENCE
AND REASON will hear

Nicholas Lamar Soutter

on “The Importance of Critical
Thought”

7:00 PM February 12th, 2020

==>**New Location**<==

==>**Copper Canyon Restaurant**<==

==>**5455 Gibson Blvd SE**<==

Bring a friend!

new location, Copper Canyon Restaurant on Gibson, across from Lovelace.

March 11, 2020 NMSR Meeting: TBD

Our March 11th meeting is still TBD.

**April 8th, 2020 NMSR Meeting: Gover
on City Economic Growth**

At our April 8th meeting, NMSR will hear James Gover, technology and policy wonk, speaking on “City Economic Growth: implications for New Mexico.”

MEETING LOCATION *VOTE!*

Changes in the rules for meetings at CNM have necessitated a review of procedures for groups such as ours. For February, we are meeting at a new location, Copper Canyon Restaurant. There is a chance NMSR can continue meeting at CNM in the future, at our usual time (7 to 9 PM 2nd Wednesdays).

If we make the move to Copper Canyon permanent, we will be changing the meeting time to 6:30 to 8:30, to accommodate the closing schedule for the restaurant. In addition to the earlier time, members will be able to buy meals during the meeting, easing the difficulty of grabbing dinner before or after meetings.

In the event we can choose either venue, we’re having a vote on-line (and snail mail too). To vote online, visit www.roundorflat.com/venue, and let us know what you think. For snail mail, clip or copy this form, and send it to Dave Thomas, 1201 Avenida de Chamiso Pl., Socorro, NM 87801.

When/Where should NMSR hold 2nd Wednesday meetings?

- CNM 7 – 9 PM []
- Copper Canyon 6:30-8:30 PM []
- Other? _____ []

FUTURE MEETINGS ANNOUNCED

**February 12th, 2020 NMSR Meeting:
Nicholas Lamar Soutter on “The
Importance of Critical Thought”**



Nicholas Lamar Soutter is a writer and philosopher, born in Cambridge, Massachusetts. He has written a “rebuttal” novel to Ayn Rand’s *Atlas Shrugged*, title *The Water Thief*, which was awarded a Kirkus Star in 2012. Nick lives in the Boston area with his wife and two daughters.

He continues his Essays on Politics and the Social Sciences and The Business and Craft of Writing, and teaches a bi-weekly writer’s workshop. He will be speaking to NMSR via a live video hookup.

Join us at **7:00 PM February 12th, 2020 at a**

New Mexicans for Science & Reason (NMSR)

NMSR is a non-profit group with the goals of promoting science, the scientific method, rational thinking, and critical examination of dubious or extraordinary claims. NMSR meets at 7 PM on the second Wednesday of each month, in Albuquerque, New Mexico, at CNM's Student Resource Center, room 204 (@ Richard Barr Boardroom). NMSR Reports is its official newsletter.

NMSR officers:

Dave Thomas, President

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Marilyn Savitt-Kring, Science Mom

Membership: \$25/year (hardcopy newsletter), or \$15/year

(downloadable PDF), make your check payable to

NMSR, send to treasurer (Debbie Thomas).

NMSR Advisors:

- **Mark Boslough**,
Physicist (Impacts, Climate Change,
Global Warming). Sandia National Labs.
- **Kendrick Frazier**
Editor, Skeptical Inquirer
- **John Geissman**
Professor of Paleomagnetism
- **Alan Hale**
Southwest Institute for Space Research
- **Randy Thornhill**
Professor of Biology, UNM

Cyber-Cypher Clue: X = B, Z = V.

Bonus Puzzle Clue: Eliminate X, solve for H.

WANTED: READER ARTICLES & COMMENTARY

Got something to share with NMSR members?
Send it in! ATTN: Dave Thomas, Editor, NMSR Reports.

REMEMBER, our next NMSR meeting is at 7 PM
on **WEDS., FEBRUARY 12th, 2020**, at **Copper
Canyon Restaurant, 5455 Gibson Blvd SE!**

PUZZLE TIME!

[Please send solutions to Dave Thomas at: nmsrdave@swcp.com, or at 801 Fitch Ave., Socorro NM 87801.]

Cyber-Cypher: FEBRUARY PUZZLE

(Submitted by Dave Thomas)

The following letters are a simple substitution cypher. If R stands for L, R will stand for L everywhere. Your Cyber-Cypher Clue: Clue? Oh, well - if you must, see p. 2.

```
" I Y G L      Y E F G J N      M K      E W F G J
P K Q J              B K K R N              E L V
V C W W G J G L A G N ,      C F      D G E L N
F Y G P   Y E Z G   L K I Y G J G   B G W F   F K
M K .      E L V      F Y G L      P K Q      R L K I
P K Q ' J G   I C L L C L M ! "   -   M J G F E
F Y Q L X G J M
```

SUPER SECRET WORD!

However you prefer to do the cypher itself (above or below), simply duplicate those actions on the alphabetized row of cypher letters below. You'll build an answer key, and you'll also reveal - the Super Secret Word!

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

JANUARY CYPHER SOLUTION

"REMEMBER THAT I PREDICTED A LONG TIME AGO THAT PRESIDENT OBAMA WILL ATTACH IRAN BECAUSE OF HIS INABILITY TO NEGOTIATE PROPERLY - NOT SKILLED!" - DONALD TRUMP, NOVEMBER 2013 (Attach should have been Attack)

Esteemed January Code Crackers: Mike Arms*, Austin Moede*, and Terry Lauritsen*!

*Secret Word: "CLUMSY ANTIPODE"

SOCORRO STUMPER

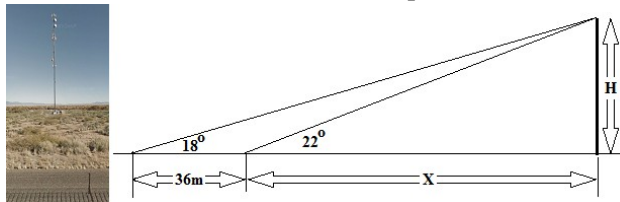
Need more Secret Word Cryptograms?

New puzzles every week at
www.nmsr.org/SocorroStumper.htm



February Bonus: “Measuring a Mast”

South of Belen, a radio mast can be found near I-25, a short distance to the east of the freeway. The angular size of the mast, measured from the north-bound lane of I-25, is about 22°. The same angle, measured from the south-bound lane, is about 18°. The two lanes are 36 meters apart.

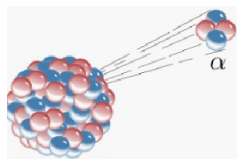


The February Bonus: (A) How tall is the mast (**H**)? (B) How far is the mast from the north-bound lane (**X**)?

January Bonus: “Wasting Away”

Submitted by Dave Thomas

A certain radioactive element, Unobtanium, loses one percent of its mass in a year.



The January Bonus: What is Unobtanium’s half-life?

Answer: About 69 years.

Congrats: Paul Braterman (UK), Keith Gilbert (NM), Rocky

S. Stone (NM), Gene Aronson (NM), Harold H. Gaines (KS).

January 8th, 2020 NMSR Meeting:

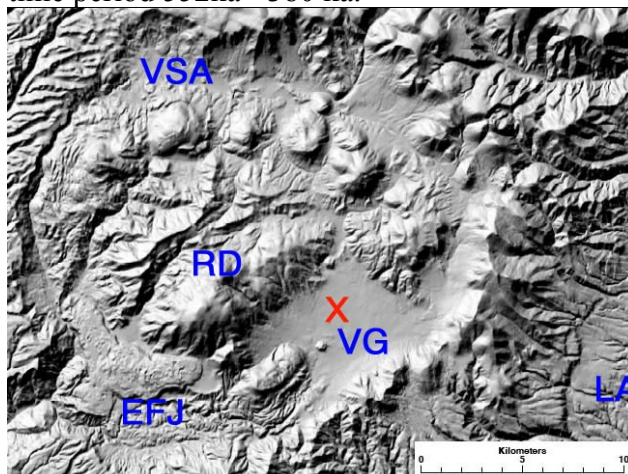
Professor **Peter Fawcett**, UNM Earth & Planetary Sciences department chair, spoke on “The Paleoclimate Records of the Southwest and Mexico.” Peter discussed the significance and implications



of Quaternary (last 2.6 million years) lacustrine (lakebed) paleoclimate records from the U.S. Southwest and Mexico. Fawcett was part of a large project at Lake Chalco, Mexico, with a drilling cost of ~\$500,000. Four holes were cored, with a maximum depth of 520 m. A total of 1.1 km of core was recovered, ranging in age from Holocene to ~400 ka. That work is still being analysed by teams of grad students for the near future.

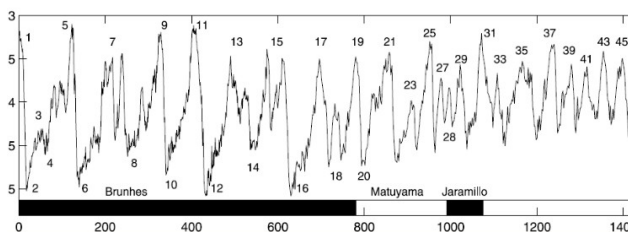
Peter helped lead a smaller project closer to home, in the Jemez Mountain’s Valles

Caldera, NM, with a drilling cost of ~\$65,000. Here, one hole was cored to 83 m, covering the time period 552ka - 380 ka.



Valles Caldera, NM, where volcanic dams once created a large lake (X).

Paleoclimate records have also been obtained from glacier ice in Antarctica and Greenland. The southwest region lakebed cores have good time resolution; frequent volcanic activity in the region provides the isotopes needed for accurate date determinations. These deposits also provide data on what the climate was doing in our neighborhood (New Mexico and the southwest) during past episodes of glaciation. The chart below shows glacial periods (valleys) and warmer inter-glacials (crests). The glaciers were not here in New Mexico, but came and went in more northern latitudes. Two full glacial cycles are recorded in the lake sediments.



Timespan covered by core VC-3
Marine Isotope Stages 14 - 11 (563 - 424 ka)

Glacial and Interglacials, older on the right.

Two important findings emerged from the data. One was that, as circulation patterns in the north Atlantic changed with advent of glaciers, the climate in New Mexico was affected. Periods of warmer temperatures were accompanied by periods of drought; this has implications for NM’s prospects in times of global warming.



L-R Dave Thomas, Mark Boslough, Les McFadden, Peter Fawcett, Mark Fraser.

It turned out that, during glacial periods up north, the climate here in the Southwest ranged from really cold to “stinking cold,” and some of these climate shifts occurred very rapidly, on the order of a few decades. These were not forced by Milankovich cycles, or by human influence, but rather by changes in oceanic circulation patterns.

The group found there have been several abrupt warmings, ~50 years, of 2 – 6 °C, which have been matched by dramatic changes in

watershed vegetation and sediment physical properties. The work supports the idea of migration of winter jet stream position in North America.

NMSR thanks Peter Fawcett for a fascinating presentation.

Winter Skeptiverse Haiku!

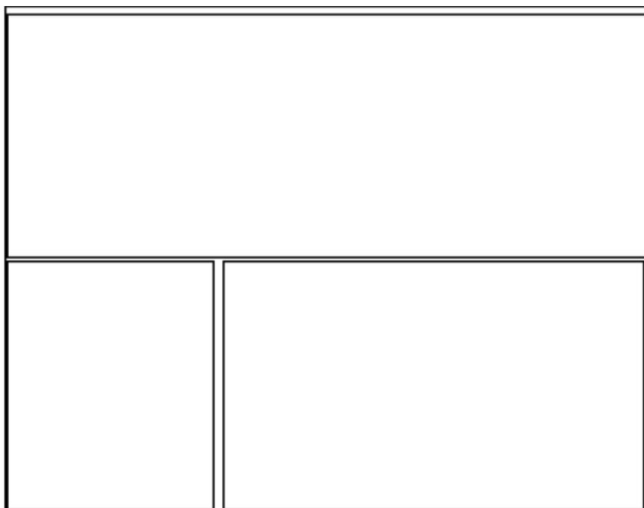
by Keith Thomas

Erroneous eyes Extraterrestrialize Our exotic skies.	Equine selection – We must find the right donkey To beat the jackass!
I’ve resolved, for this year, To trim ambiguity By twenty five volts!	Bactrium camels Have to carry/One more hump Than dromedary.
For the year ahead, I foresee we’ll see many Unforeseen events.	NMSR Dave, Should you add flying saucers To your juggling act?

DUES check the date on your mailing label. If it's time for you to renew, or to make a contribution, please make your check payable to NMSR, and send it to Debbie Thomas, NMSR Treasurer, 3205 Alcazar NE, Albuquerque., NM 87110
Name _____
Address _____
Membership \$25 per annum (hard copy newsletter), or \$15 per annum (online newsletter).

The NMSR e-mail list is fun! It’s an e-mail list with news announcements of interest to NMSR members, discussions about news of the times, and more. To join, send a request to nmsrdave@swcp.com.

Thanks to: John Covan, Eddy Jacobs, Debbie Thomas, Keith Thomas and all our Puzzlers!



NMSR Reports Vol. 26, No. 2 February 2020
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 Announced
 New Puzzles!
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 Paleoclimates in Lakebeds

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 Nick Souther
 NEW VENUE:
 COPPER CANYON
 RESTAURANT
 7PM