



Newsletter of the Willamette Agate & Mineral Society Salem, Oregon

## January 2009

### January Meeting

The meeting for January 2009 will be Tuesday January 6. This is due to New Year's Day falling on the first Thursday of the month.

### Show Meeting

~Submitted by Janice Van Cura Co-Chair

The next Show meeting will be held January 5th at 6:30 pm at the Salem Senior Center. We have a great group of people working on the show. The florescent display is being put together so it will be back this year. But we still need help with the silent auction. If you are interested in putting in a display case please contact Reyne Knutson.

### Haiku

~submitted by Rudy Appleby

I face waves and laugh  
The rising sun warms my back  
Seeking blue agates.

### Talents and coppers: counting rocks

~Popular Minerology

Way back in the days of the ancient Greeks, before the modern Geeks invented of the electronic calculator, early clerks used a "counting board" to tally up their accounts.

One of the few surviving ancient counting boards is the "Salamis Tablet." Made of polished marble, the Salamis Tablet has letters chiseled into it corresponding to the denominations of ancient coins,

ranging from "T" for the *talent* down to "X" for the *chalkós*. (A *chalkós* is one-eighth of the *obol*, which is one-sixth of the *drachma*, which is one-six-thousandth of a *talent*. Thus, there are 288,000 *chalkós* in a *talent*.)

The counting board was used by placing small rocks as counters above the various symbols for the various currency values. As one added or subtracted values, the counters would be rearranged. The counters were called *pséphoi* ("pebbles") and the word *pséphizein* meant "to compute" or "to calculate," but its literal meaning is "to pebble." Thus, an accountant is really a pebbler!

What is interesting to the mineralogist about this early system is that the word *chalkós* means "copper" or "ore." Is it just a coincidence that the smallest currency unit in ancient Greece was the "copper" and that today in the U.S., we use the copper penny as our smallest coin?

It is also interesting to note that some African societies traditionally used a form of copper money in which the copper metal was cast not into a coin but rather into a large "X"-shape about 10 inches (25 cm) across. Is this shape the source of the "X" symbol used for the *chalkós*?

Ref: Menninger, Karl, 1969, *Number Words and Number Symbols*, Dover, New York, p. 299-300.

### IN THIS ISSUE

WAMS Club Information	2
Editor's and President's Messages	3
Up Coming NW Shows	3
Meeting for January	1
T-Rex Article	3
Meeting Minutes	5
Board Minutes	5-6
An American Mineralogist	6



The Willamette Agate and Mineral Society, Inc. (WAMS) is a nonprofit organization and an Oregon Corporation, founded November, 1947. WAMS is affiliated with the American Federation of Mineralogical Societies (AFMS), the Northwest Federation of Mineralogical Societies (NFMS), the Oregon Council of Rock and Mineral Clubs, the American Lands Access Association (ALAA), and the Special Congress Representing Involved Bulletin Editors (S.C.R.I.B.E.).

Meetings are held on the first Thursday of each month at 6:30 pm at the Salem Senior Center, 1055 Erixon Street NE, in Salem, Oregon. Executive Board meetings are held with upcoming meetings announced at the

general meeting, and all members are invited to attend.

WAMS was organized to stimulate interest in the study and collection of agates, minerals, gems, and fossils, and support lapidary work, education, scientific study of natural earth sciences, and charitable purposes within the meaning of Section #501(C)(3) IRS.

**WAMS Membership**

Membership dues are due by December 31 for the following year. Anyone joining WAMS between January and June pay the full amount. Anyone joining WAMS between July and December pay half the amount. Potential new members are encouraged to attend three meetings as a guest before completing and submitting an application.

**Membership Dues:**

- Individual: \$15.00
- Couple: \$24.00
- Juniors: \$ 2.50

Guests are welcome and are encouraged to attend WAMS meetings!

**Website:** [www.wamsi.org](http://www.wamsi.org)

**2009 Elected Officers**

- President: Rob Leedy 503-371-6421
- Vice President: Daniel Bontempo 541-497-7916
- Secretary: Lee Ann Settlemeier 503-394-4283
- Treasurer: Kathy Bennett 503-363-4974
- Federation Director: Marvin Bartel 503-364-4170
- Members at Large: Bob Manley 503-845-6482
- Larry Nasset 503-585-4390
- Ray Haslebacher 503-393-5228
- Norm De Roux 503-371-4623
- Phil Knutson 503-363-4231
- Ed Pyritz 503-585-2903
- Joe Start 503-873-6729

Board Chair: Geri Esch 503-371-1472

**2009 Committee Chairs**

- Show Chair: Linda Groah 503-873-6930
- Field Trips: **VOLUNTEER NEEDED**
- Bulletin Editor: Kristi Edwards 541-738-6811
- Education: **VOLUNTEER NEEDED**
- Juniors: **VOLUNTEER NEEDED**
- Nameplates: Ted Johnson 503-362-6186
- Oregon Council: Vicki Johnson, 503-362-6186
- Rules and Awards: **VOLUNTEER NEEDED**
- Programs: **VOLUNTEER NEEDED**
- Property Control: Theresa Byrne 503-364-7190
- Public Relations: **VOLUNTEER NEEDED**
- Advertising: Susan Appleby 503-391-4221
- Publications: Bob Manley 503-845-6482
- Scrapbook/Historian: Steve Lawrence 503-585-8014
- Hostesses: **VOLUNTEER NEEDED**
- Refreshments: **VOLUNTEER NEEDED**
- Coffee: **VOLUNTEER NEEDED**
- Stamps: Aaron Currier 503-393-2055
- Sunshine: Karen Porter 503-371-7752

The Rockhound Rumbblings bulletin is published monthly for members of the Willamette Agate and Mineral Society (WAMS). The editor is not responsible for the authenticity of information in articles submitted for publication, nor are the opinions expressed therein necessarily those of the editor or officers of WAMS. Permission to reprint material in the bulletin is granted freely, provided proper credit is given. Exchange bulletins are welcome.

**Advertising Rates**

Member: Non-business - One (1) free ad per year or \$1.00/issue or \$8.00/year. (Business card size or 12 lines or 1/10 page).

Non-member and members with a business - \$4.00/issue, \$35.00/year (10 issues), or \$17.50 for 1/2 year (5 issues). Same size regulations as above.

**Mailing Address**

WAMS - P.O. Box 13041 - Salem, OR - 97309-1041

## Editor's Message

Happy New Year!! I hope everyone had a great holiday season.

Congratulations to all new officers. Hopefully I have all the information correct. If not, please let me know.

I have not gotten any info on any upcoming field trips, so if there is one being planned for the beach let me know. February looks promising with some low tides and hopefully the weather will be good.

A reminder that this month's meeting will be Tuesday January 6.

The scholarship applications are included in the newsletter. Any questions please refer to the committee.

See you at the meeting.

Kristi Edwards  
Bulletin Editor

[kmedwards2@comcast.net](mailto:kmedwards2@comcast.net)

## UP Coming Shows

January 16-18

Gem Faire  
Hillsboro, OR

### FMS News

Can be viewed at [www.amfed.org/nfms/](http://www.amfed.org/nfms/)

### AFMS News

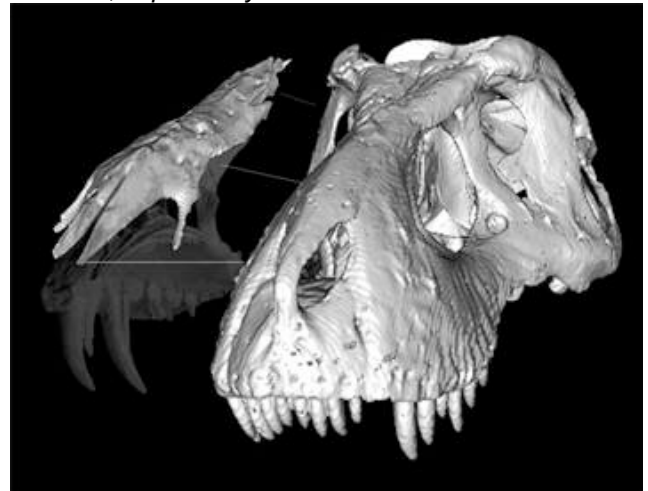
Can be viewed at [www.amfed.org](http://www.amfed.org)

## Presidents Message

No message at this time from Rob. He is having Internet problems.

## T. rex's secret weapon? A stout snout

*Fused bones turned dinosaur's nose into a killing machine, experts say*



By Jeanna Bryner



A paleo-bully of sorts, Tyrannosaurus rex could chomp down on prey with the force needed to lift a semitrailer, tearing apart a victim's bones. Now researchers have discovered the dino's secret weapon: It was hard-headed.

"Fused, archlike nasal bones are a unique feature of tyrannosaurids," said lead scientist Eric Snively of the University of Alberta. "This adaptation, for instance, was keeping the T. rexes from breaking their own skull while breaking the bones of their prey."

Tyrannosaurids are known to have robust teeth and skulls as well as enlarged areas for attachment and expansion of jaw muscles, which suggests they swiftly crush the flesh and bones of prey. And though other researchers had noticed T. rex's fused nasal bone, how the feature added to the animal's brute strength or what role it played had remained a mystery.

The new study, published in the journal *Acta Palaeontologica Polonica*, used 21st-century technologies to look at the biomechanics of the ancient creatures.

### Bone Crunch

Snively and his colleagues, including physicist Donald Henderson of the Royal Tyrrell Museum in Alberta and Doug Phillips of the University of

Calgary, compared the skulls and teeth of a number of tyrannosaurids to non-tyrannosaurids.

They used computerized tomography scans to look at such structural mechanics factors as teeth-bending strength and nose and skull strength. The nasal bones form a sort of arch atop the tooth-bearing bones of the upper jaw and take a hit whenever a dinosaur bites down.

The CT scans showed that the fused tyrannosaurid nasals were stronger than unfused nasal bones found in other carnivorous dinosaurs. "When T. rex bit down, the forces from the upper teeth would be channeled right to the [fused] nasal bones," Snively said. The resulting bite would have splintered the bones of unlucky prey.

For a non-tyrannosaurid but still carnivorous dinosaur with unfused nasal bones connected with stretchy ligaments, some of the bite force would cause the nasal bones to give a little and slide against each other. The flexing would zap some of that dinosaur's bite energy.

"Because the nasals [of T. rex] were fused, all of the bite force was transmitted to the food instead of some of the force being distorting the skull," Snively said.

"The T. rex especially had a very strong skull and jaw muscles that would turn it into a zoological superweapon."

### **Perfect ingredients**

T. rex would likely not back down from bigger beasts either. A medium-sized T. rex boasted even more skull strength than a larger carnivorous creature, such as Carcharadontosaurus saharicus, whose head was about one and a half times as long as that of T. rex.

The scientists used conservative estimates of muscle force when comparing the overall strengths of the animals. "We kept the muscle numbers down because we thought they couldn't possibly be that powerful," Snively said. He noted that colleagues at the Tyrrell museum have shown that a T. rex's lower jaw could apply 200,000 newtons of force, or enough strength to lift a tractor-trailer.

With that whopping bite, sometimes T. rex likely got its deeply-entrenched teeth stuck in prey. "If the teeth were embedded in the prey and T. rex wasn't able to extract the food, it couldn't eat very well," Snively told LiveScience.

That's why, Snively suggests, T. rex had such a powerful neck. In a split second, the dino could swing its head and toss large chunks of meat up and into its throat. The scientists calculated that a T. rex could fling a 100-pound person more than 15 feet into the air.

The tossing power also meant T. rex could tear from side to side, ripping chunks of meat from another dinosaur. "The tossing showed us how easily T. rex could feed; it would toss food back in the throat," Snively said. "But the overall power also shows us how T. rex could remove flesh and bone from prey."

He added, "All of the T. rex's features came together to give it the strongest bite of any land animal. The T. rex just blows everyone out of the water when it comes to strength."

(Article is from MSBNC Science & Technology)

## **WAMS General Meeting November 6, 2008, 6:30 p.m. New Salem Senior Center ~ submitted by Walt Friday**

Geri Esch, President, at 6:34 p.m., called the meeting to order.

**BOARD AND OFFICERS IN ATTENDANCE:** Geri Esch, President; Linda Groah, Acting Vice President, Walter Friday, Secretary; Lee Anne Settlemier, Treasurer; Janice Van Cura, Chair of the Board; Marvin Bartell, NW Federation Delegate and Members -at-large: Larry Nasset and Norm DeRoux.

**ANNOUNCEMENTS:** 2009 Dues are due but will not be received at the December Christmas Party. The last Board Meeting for the year is November 24<sup>th</sup> at the New Senior Center at 7:00 p.m. WAMS Christmas dinner is Saturday, December 6, 2008, at 5:30 p.m. at Roth's-West Salem. WAMS Library is available and donations to the library are welcome. Ordered nametags are at the sign-in counter along with a list to order tags. Correction to the membership list: Charlie and Judy McCormick's phone and Zip Code should be 503-743-3646 and 97392.

**APPROVAL OF MINUTES:** Minutes of the October 2, 2008, meeting were approved with corrections: President reported her first name was misspelled –Geri (secretary could not find this error in the October minutes) Next meeting said November 1, 2006, should be November 1, 2008.

**APPROVAL TO PAY THE BILLS:** Lee Anne Settlemier, Treasurer, presented a bill to pay: Kristi Edwards for newsletter and postage. The member approved paying the bill.

**TREASURER'S REPORT:** Lee Anne Settlemier, Treasurer, presented a detailed treasurers report showing an ending balance of \$22,576.72. The report was approved as presented.

**PROGRAM:** Victoria Standley, WAMS scholarship recipient, presented a program on her attendance at rock camp near Fossil, Oregon. They cut and polished a thunder egg, collected leaf fossils and visited Glass Butte where they saw obsidian

knappers at work. She thanked the group for the scholarship.

**ELECTION OF 2009 OFFICERS:** Geri Esch and Janice Van Cura presented a partial slate of officers and asked for volunteers from the floor. The following slate was developed: President-Olaf Carpenter, Vice President-Dan Bontempo Secretary-Lee Anne Settlemier, Treasurer Kathy Bennett, Federation Rep-Marvin Bartell, Members at Large-Rob Leedy, Joe Start, Ray Hasselback, Phil Knutson, Bob Manley, Larry Nasset, Ed Pyritz and Norm De Roux. There were no additional nominations. A motion was made, seconded and passed to accept the full slate of officers.

**LEGISLATIVE ISSUES:** Don Clark of the Reno Rock Club presented concern about Federal House Bill 554, Palentological Resources Preservation Act. Don suggested that letters should be written opposing this legislation. Ted Johnson presented concern about the Oregon Ocean Reserve Act that may impact lapidary collecting on the beaches. Others speaking on this item were: Jim Shine, Larry Nasset and Ken Settlemier.

**HISTORY:** Steve Lawrence reported he has not received any pictures or articles for the history after the year 2000.

**NEW MEMBERS:** Linda Groah presented the new members: Ned Trautman, Gary & Beth Sprauer and Kathy Navarrette. A motion was made, seconded and passed to approve the new members.

**SHOW:** Janice Van Cura and Linda Groah reported the 2009 show committee is up and running. We need chairs for the Silent Auction and Florescent Display. There will be an oral action to benefit the Scholarship Fund on Sunday with the auction items on display during the show.

**OREGON COUNCIL:** Vickie Johnson told of a new case at the State Capitol Building by the Roxie Ann Club. This show will be in place for the 150<sup>th</sup> Anniversary of the State of Oregon on February 14, 2009.

**REFRESHMENTS:** Jane Taylor, Chuck Hunt and Nadine DeRoux were thanked for the refreshments for the November's meeting. Refreshment volunteers for the January meeting are Josie Wagoner and Judy McCormick.

**LAPIDARY SHOP:** Walt Friday called attention to the work of Larry Fawcett, Larry Lovell and Ted Silver to get the lapidary shop in operation after the move to the new center and suggested they should be given a pat on the back.

**MEETING ADJOURNED:** 8:35 p.m.

**BOARD MEETING:** November 24, 2008 at 7:00 p.m. at the New Salem Senior Center, 2615 Portland Rd NE.

**NEXT GENERAL MEETING:** January 8, 2009 at 6:30 p.m. at the New Salem Senior Center, 2615 Portland Rd. NE. Show and Tell letter is "N."

## Board Meeting Minutes,

November 17, 2008  
Salem Senior Center

The Board was called to order at 6:30 by Board Chairman Janice Van Cura.

**Members in Attendance:** The new officers for 2009 were invited to attend the board meeting along with the 2008 board members. Those in attendance were Linda Groah, Bob Manley, Phil Knutson, Ed Pyritz, Larry Nasset, Dexter Leonard, Norm DeRoux, Rob Leedy, Marv Bartel, Kathy Bennett, Geri Esch, Janice Van Cura, and Lee Anne Settlemier

**Club President:** Because of a medical condition, Olaf Carpenter is unable to serve as president of WAMS for 2009. Rob Leedy was nominated and elected as our new President.

**January, 2009 Meeting:** New Years Day falls on the first Thursday of January. The Salem Senior Center is closed on New Years Day, and we are unable to meet the second Thursday of the month because the time has been reserved by another organization. The board discussed several options, and decided that the best time and place to meet would be on Tuesday, January 6, at the senior center.

**2009 River of Gems Report:** The next Show Committee Meeting will be on Monday, January 5 at 6:30 PM at the senior center. There is a group working on the fluorescent display. Other subcommittees are continuing to meet, and Silent Auction could use some more help. The need for additional cases for the Fluorescent show and the oral auction for the Scholarship fund was discussed. It will be determined if we have sufficient cases on hand.

Jewelry Cases were offered to the club by Gina O'Seancey. The board voted to accept the donation.

**Bylaws:** The bylaws were last revised in 2005. We probably should have a committee to review our bylaws and recommend any changes, if needed, in either 2009 or 2010.

**General Meeting Set-up:** The area we meet in is

one half of the largest meeting area. The side we met on last time contains the snack area, but does not contain the audio-visual equipment. In addition, the half room is too small to allow easy movement. President Geri Esch will find out the possibilities of us using both sides of the room.

**Library:** The librarian had some suggestions and asked for some direction on our library. A committee will be formed to go through our current library books and determine which books the club wants to retain, and select extra books to offer for purchase by club members at a club meeting. The funds from this will be used to purchase additional books and/or infrastructure for the library.

**Treasurer's Report:** A summary treasurer's report was presented. There were no bills to be paid.

**Land Use Information:** Considerable time was spent discussing land use issues relating to rockhounding. Several points were made, including that we need to be sure appropriate research has been done, and that the information presented to the club is as accurate as possible. Several sources of information relating to these issues were suggested, and Janice will research the regulations pertaining to the presentation of information.

We can educate on what issues are out there, and what impact those issues will have on rockhounding, including how similar legislation has impacted other parts of our country. We cannot tell anyone how they should personally relate to a particular issue, or how they should vote on a given measure.

We need to realize that in our club we will have people on both sides of an issue, and we need to handle those issues both individually and as a club in a manner that will minimize potential rifts between members.

Adjournment: The board adjourned at 8:35.

# What's Rocking?

**WAMS General Meeting**  
**Tuesday**  
January 6 - 6:30 pm  
Salem Senior Center  
2615 Portland Rd NE Salem, OR  
**Guests Welcome!**

**January Program**  
No program at this time  
**January Show and Tell**  
Bring rocks/minerals/gems beginning with the letters  
**N**



Official Publication of the  
**Willamette Agate and Mineral Society**  
Kristi Edwards, *Bulletin Editor*  
1236 SE Seaport Circle  
Corvallis, OR 97333