



Ore-Cutts

Volume XLI, Issue I

January, 2006

Fossil Turtles - The Original Survivors

As submitted by Wayne Mills, Member, Orcutt Mineral Society, based on his program from November 2005

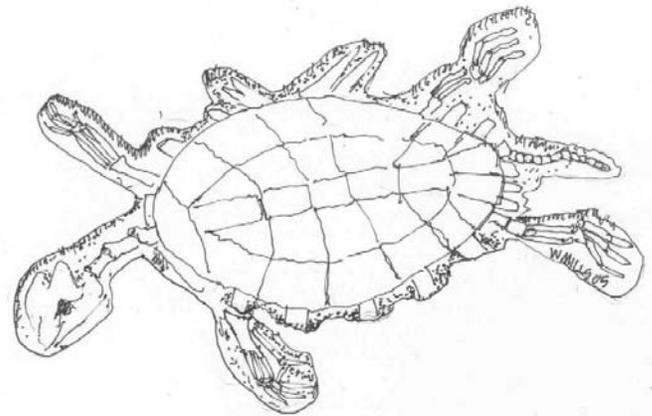
The Age of Reptiles lasted for about 165 million years. This period that saw the rise and fall of dinosaurs and other fantastic forms of life was bracketed by two catastrophic occurrences in which about 80 percent of all species on earth vanished. One of four reptile forms that survived the great meteorite impact that ended the Cretaceous period 65 million years ago, was the turtles.

Reptiles are marked by scaly skin, oviparous (egg-laying) birth, and a 4-chambered heart, and are thought to have risen from the thecodonts, small skink-like amphibians that crawled onto the land about 245 million years ago. Fossils of one of these reptile ancestors, *Seymorja*, have been found in the extensive Permian deposits in Texas. *Seymorja* was 6 inches long.

The earliest turtles that have been discovered date to about 210 million years before present (BP) and both fossils come from Germany. Interestingly, one of these turtles, the rather primitive looking *Proganochelys* represents a now extinct order, while the other, *Proterochersis* comes from one the two modern sub-orders of turtles (Order Testudinata), called the Pleurodira (side-necked turtles). This fact suggests that perhaps earlier forms of turtles await future paleontologists.

These early turtles were aquatic, suggesting that that they inherited their facility in the water from their amphibian ancestors. However, it was not until about a hundred million years later that the first sea turtles evolved. The first fossil sea turtle discovery is a single

specimen from Brazil dating to about 115 million years BP. In 1998, dozens of sea turtle fossils dating to 110 million years BP were discovered in Queensland, the northeastern state of Australia. The remarkable similarity of these fossils to living sea turtles prompted creationists to use them as proof against the theory of evolution. "Where are the intermediate stages of development?" they cried.



Australian Sea Turtle

Ben Kear, a paleontologist who was part of the Australian sea turtle discovery team responded that "Sea turtles have hit on the winning design and they've stuck to it, they've cracked the winning code, as it were, and it's enabled them to survive when other creatures haven't".

Considering some of the competition the turtles have had, their survival is indeed remarkable. The largest turtles that have been found to date existed in a vast, shallow sea that covered much of the interior of the United States during the Cretaceous period, about 120-65 million years ago. This seaway was called the Niobraran Sea, and it extended from the Gulf of Mexico across the Midwest to what is today the Arctic Ocean. In this seaway were

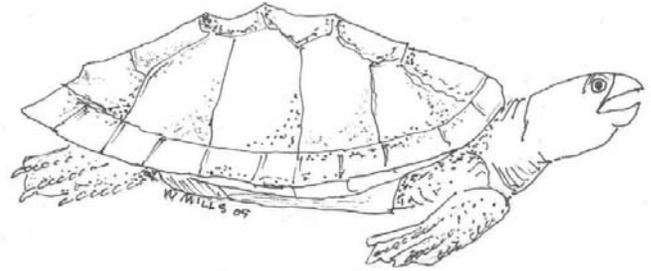
deposited sediments that became the Pierre Shale in the Dakota Badlands, and the Niobrara Chalk in Kansas and Nebraska. The lovely, iridescent ammonites found in Canada (and sold as ammolite jewelry) are the fossilized remains of cephalopod mollusks that lived in this seaway, while tyrannosaurs, hadrosaurs and other dinosaurs prowled its western margins. Pterosaurs and Pterodactyls soared over the seaway, and preyed on abundant marine life that teemed in its shallows. The maximum depth of this sea is estimated at about 600 feet. One of its remarkable creatures is called *Archelon Ichsoros*. Fossils of this huge sea turtle measuring up to 16 feet across its front flippers have been found in Upper Pierre Formation of Kansas and the Dakotas. (The Los Angeles County Museum of Natural History has an impressive complete cast of this fossil.) Another huge fossil sea turtle *Protostega gigas* also inhabited the Niobraran Seaway with *Archelon*. Fossils of *Protostega*, a turtle measuring up to 11 feet long, and 10 feet across its front flippers have been found in the same formations as *Archelon*.



Author viewing *Archelon* skeleton

Protostega and *Archelon* are dermatochelid like turtles from the Family *Protostega*, and they appear to be related to the modern leatherback turtle, the largest turtle currently living. Leatherbacks are the only living representative of the Family *Dermatochelys* that is distinguished by a leathery covering over a skeletal **carapace** (back). The belly of the turtle is called the **plastron**. There are about

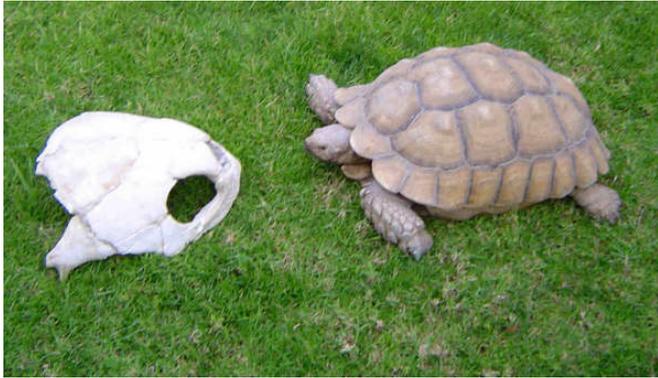
59 bones in the typical turtle shell (not counting leg and neck and skull bones). It has been pointed out recently that the shell of turtles is made up of narrow ribs covered by dermal bone, not broadly expanded ribs as previously thought. The survival of *Archelon* and *Protostega* in the interior seaway is remarkable, because their enemies included the knife toothed, 30-50 foot long *Mosasaur* and the equally formidable, 25-foot long *Ginsu Shark*.



Toxochelid Turtle

About the same time the Niobraran Seaway existed (70-80 million years BP), the coast of California ranged from San Diego in the south to near the middle of the state, near where Sacramento is today. This fact is attested to by the *Chico Formation* that outcrops north and south of Sacramento and by other equivalent age, shallow water, marine formations that cover almost the entire length of the state between Tehama County in the north, and San Diego County in the south. These formations have produced numerous marine vertebrate and invertebrate fossils including 26 marine and terrestrial turtles. The Cretaceous age turtle discoveries are illustrated in the recently published California Dinosaurs and other Mesozoic Reptiles (Richard Hilton, 2004). Included in the discoveries are fossils of 2 to 4 foot long Toxochelid turtles that also appear to be related to the *Archelon* of the great interior seaway and to the modern day leatherback turtle by their incomplete carapace. The Toxochelids are also the most abundant fossil turtles found in the inland seaway. One terrestrial appearing turtle *Basilemys sp.* was found in the marine formations. This individual appears to have been washed into the near shore environment from a coastal river.

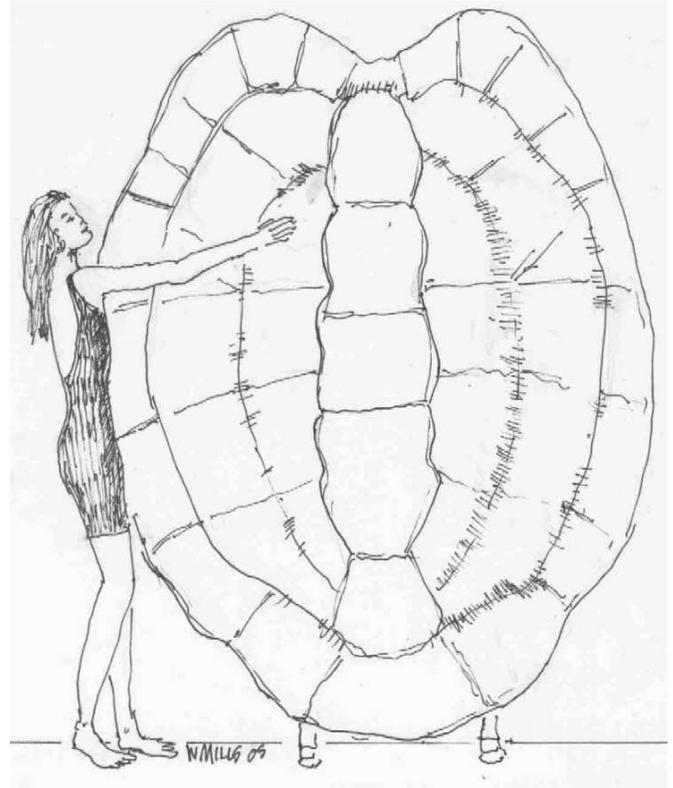
30 million years ago, the inland seaway had long since retreated. Northern Nebraska was a swampy lowland occasionally affected by ash fall from volcanic eruptions most likely occurring in the ancestral Rocky Mountains. This depositional environment is preserved in the Brule Formation that outcrops spectacularly in Toadstool State Park, Sioux County, western north Nebraska. Here are preserved the remains of thousands of turtle fossils as well as remains of camels, rhinoceroses, and saber tooth cats.



Sharktooth Hill skull compared to live Sulcata tortoise named "Sultan"

As previously mentioned, turtles appear to have weathered the catastrophic end to the Cretaceous period when a 6 mile wide meteor crashed into the earth off the Yucatan peninsula. The immense size attained by some sea turtles seems little diminished by the disaster that wiped out about 80% of all species on earth. This fact is attested to by the fossil of an 8-foot long leatherback turtle relative that was recently discovered at Sharktooth Hill in Bakersfield. The skull of this creature measures 14.5 inches by 12 inches. It can be seen in the Buena Vista Museum in Bakersfield. Sharktooth Hill is one of three locations in California that have been designated "areas of unique geological or paleontological interest" under the California Environmental Quality Act. The fossils preserved at Sharktooth Hill indicate that about 15 million years ago, a rich and diverse marine fauna existed in what is now an arid interior valley. This fauna included several species of sharks, including the 45-foot long Carcharodon megalodon, a relative of the great white shark. Also, whales,

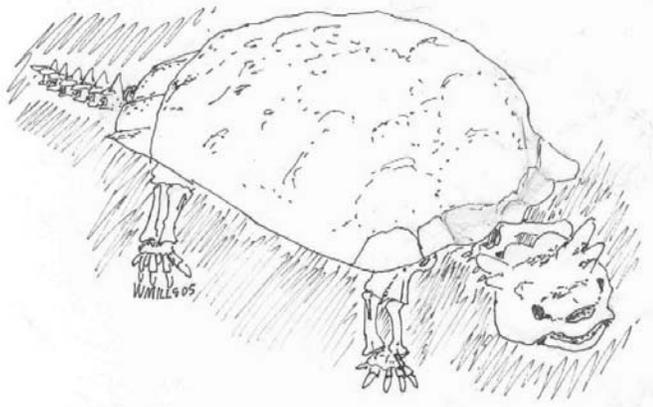
dolphins, sea lions, sea cows, sea birds, parrotfish, and bat rays, among others lived and died here.



Stupendemys compared to a human

In 1952, paleontologists in Venezuela uncovered the fossil of what is considered the largest non-marine turtle that ever lived. This creature is appropriately named *Stupendemys geographicus*. *Stupendemys* was about 10 feet long, and is estimated to have weighed 4-5,000 pounds. By comparison, the largest non-marine turtle living today is the Galapagos tortoise that is about 4 feet long, and weighs 500-600 pounds. *Stupendemys* lived and became extinct 6 million years BP, and is believed to be an aquatic turtle in the sub-order Pelomedusidae (side necks).

Even more recently lived a quite unusual appearing turtle that appears to be an evolutionary side-track. Fossils of *Meiolania platyceps* were found on Lord Howe Island off the coast of Australia. *Meiolania* was about 8-feet long, and lived about 25,000-100,000 years BP.



Meiolania platyceps

<http://www.angellis.net/Web/PDfiles/turtles.pdf> lists 37 pages of fossil turtles and the general locations where these have been discovered. At about 57 entries per page, this amounts to 2100 species of fossil turtles that have been discovered to date. Currently about 262 species in 87 genera remain on earth. Of these, 50 species are on the endangered species list, including most of the 8 species of sea turtles. The modern turtle genera are summarized on Table 1.

The most abundant genera of fossil turtles, appear to be *Testudo* (modern representatives include the Herman's, and Greek Tortoises) with 78 species dating from 37 million years BP to the present. The next most numerous are *Trionix* (the soft-shell turtles) with 77 species dating from 120 million years BP to the present. *Emys* (the pond turtles) are represented by about 53 fossil species dating from the upper Jurassic (about 145 million years BP) to the present, and *Geochelonia* (a modern representative is the Galapagos Tortoise) with 42 species dating from 58 million years BP to the present. *In is interesting to note that the term Testudo was taken from the Latin name that indicated a formation of Roman Soldiers marching into battle with their shields on their heads to protect them from rocks and arrows launched by their enemies.*

Table 1

GENERA	SPECIES	FAMILY	COMMON NAME	LOCATION
Class Reptilia, Order Chelonia/Testudinata				
Suborder Cryptordira				
1	1	Carettochelyidae	Pig Nose turtles	New Guinea, Australia

2	2	Chelydride	Snapping turtles	North, Central, South America, Australia
5	7	Chelonidae	Sea turtles	Worldwide
1	1	Dermatemydidae	River turtles	Central America
1	1	Dermatochelyidae	Leather-back turtles	Worldwide
33	95	Emydidae	Box turtles	North, Central, South America, Europe, Asia, North Africa
4	23	Kinosternidae	Mud/musk turtles	North, Central, South America
11	40	Testudinae	Tortoises	Worldwide
12	25	Trionychidae	Soft shell turtles	North America, Asia, Africa, New Guinea
1	1*	Platysternidae	Big head turtles	Southeast Asia
Suborder Pleurodira (Side necked Turtles)				
11	40	Chelidae	Austro-American Snake necked turtles	So America, Australia, New Guinea
5	26	Pelomedusidae	Afro-American Side neck turtles	Africa south of the Sahara, Madagascar, South America
Total				
87	262			

Perhaps because of their longevity, their deliberateness, and their stolid appearance, turtles are and have been esteemed in many world religions. American Indians honor turtles as protectors and healers who grant wisdom, good health, and long life. A modern view of lessons we can learn from turtles was expressed on the following website: <http://www.funkman.org/animal/reptile/turtlefamily.html>.

These lessons include:

- How to bask. All turtles are good this. This helps temperature control, pest management, and Vitamin D absorption. It's relaxing too!
- How to protect ourselves from negativity, and withdraw in times of danger. ("You gotta' know when to hold, and know when to fold...")
- How to be wary in new situations, and be patient in accomplishing our goals. How to find the harmony in our environment.
- How to grow old gracefully. (They live longer than any other animal. A radiated tortoise from Madagascar was presented to the

King of Tonga by Captain James Cook, and lived 188 years).

- Left to themselves, they know how to stay out of hot water-but sometimes they get "help" (Turtle soup).
- How to survive under varied and severe conditions. (The turtles survived the mass extinction at the end of the Cretaceous 65 million years BP.)



"Sultan", a Sulcata tortoise

Websites for further investigation. The following websites contain photographs or articles about the fossils discussed in this article. To respect intellectual properties, all pictures and illustrations used in this article are the property of the writer. Better illustrations are found at the locations given below.

Proganochelys

http://www.amnh.org/exhibitions/expeditions/traces-ure_fossil/Fossils/Specimens/proganochelys.html

Australian fossil turtles

http://www.dailytimes.com.pk/default.asp?page=story_24-2-2005_pg9_1

Archelon ichsoros

<http://www.oceansofkansas.com/Turtles.html>

Stupendemys geographicus

www.bryancore.org/bsg/discovering04/

Meiolana platyceps

<http://www.amonline.net.au/palaeontology/collections/popups/platyceps.htm>

Turtle Families

<http://tolweb.org/tree?group=Testudines&contgroup=Amniota>

Society members and guests: may the New Year coming greet all of us and those in harm's way protecting our nation, with good health and happiness.

First, I would like to thank you all for allowing me the opportunity to serve as your new President of the Orcutt Mineral Society for 2006. I look forward to working for you all, and with your help, generating as much fun as can be possible.

I would like to remind everyone that it takes us all to make our club work, and grow. We are all ambassadors for our club. New people coming in refresh us all with new ideas, their life experiences, and other hobbies. We have an open invitation for one and all to come and join us and be part of our activities. Please tell them the way here. Club growth is and shall be a goal for us all, not just this coming year, but for all the years to come.

Interest can be generated by minds coming together and producing ideas that capture the minds of others. Sometimes walking off the sidewalk to look at something odd may let you see the gemstone on the other side of the bush. If you have an idea, and don't feel comfortable announcing it at a meeting, please write it down and get to me anyway you feel comfortable with. However, feel free to jump up and let us know you would like to do something to help. Remember, it's a hobby to enjoy doing.



We are starting off a new year and we will be united as members of the Orcutt Mineral Society. Remember that we all have similar interests that are commonly related to rocks and minerals. Ours is a fellowship that encompasses all areas of study of what our planet earth has and is producing. Things are anew once again, all lines are away, and the watch is set. An initial shakedown to test new controls is underway. I look forward to us all making this a fun year and enjoying our field trips, and scheduled events.

Thank you all, Bob
The Wanderer

Wandering On!

There comes a time when moving on is necessary. Dick and I have been given the opportunity by his company to relocate close to our two grown daughters, their husbands, and our terrific grandsons in Texas.

President's New Year Welcome

By Robert Bullock, President, OMS

In past issues of the *Ore-Cutts*, we have written adventure tales about a few of our favorite Texas collecting locations. Now we get to spend a LOT of time collecting! We plan to explore the pre-Cambrian domes of granite in the Llano area, trek through fluorescent heaps in Terlingua (Big Bend area), and collect fossils on the Guadalupe River.

Grandsons are marvelous haulers, not unlike mules, although they're easier to handle. The boys are enthusiastic participants, enjoying Grampa's geology lessons, and Gramma's picnic lunches.

We hope to see some of you in Texas, if you ever travel through our neck of the woods.

Happy Hunting,
Love, Bess

Thank You, Writers!

By Bess Shields, Co-Editor, *Ore-Cutts*

I want to thank each and every one of you who submitted articles in 2005 to OUR newsletter! We have done very well over the past few years due to the abundance of articles submitted and published in our newsletter. Without the variety of submissions, we would be just another little newsletter. With the abundance of articles, WE ROCK!

Submission time has come and gone for the CFMS 2005 Newsletter competition. This year CFMS requested that every club submit its May 2005 issue, and one other issue of our choice. The January 2005 issue was our second submission. The issues are judged on format, editorship, articles, club/society news, photographs/illustrations, and general content.

We had 10 individual submissions to the CFMS 2005 competition. One article per author, per year is allowed. This was challenging since some authors submitted and had numerous articles published in the *Ore-Cutts*. Our gratitude to the following members for writing articles that have been submitted to the competition:

"Seriously Safe", by Bob Bullock, appeared in the March issue. Bob's vast experience, and practical tips on safety were informative and entertaining. As Field Trip Chairman, we appreciate his depth of knowledge on safety.

"Finding Needles in the Desert" was submitted by Dick Shields for publication in the April issue. The article documented wulfenite specimens currently being found in Arizona. As first place winner in last year's competition, Dick's article has been submitted in the advanced category.

"Arizona in May" was Wes Lingerfelt's adventure to the Holbrook and Petrified Forest area, and

appeared in the June issue. Jeannie and Wes hauled back some BIG logs!

"Avila Rhyolite (aka DeeDeeite)" by DeeDee Magri, was in the June issue. It was a follow-up to the OMS General Meeting talk she delivered in May. DeeDee described the minerals contained in this particular rhyolite.

"Field Trip to Salty's" was written by Sharon Duncan for publication in June. Sharon described the collecting site, and variety of minerals available for collecting at this unique earthquake zone location northeast of San Miguel.

"Tourmaline Dreams" was a mix of mineral factoids, nostalgia, and description of elbaite's unique properties. Bess Shields grew up in San Diego County, close to the world renowned tourmalines of Pala area. Bess' article appeared in the July issue.

"Rockhounding in the Southwest with Novice-Plus-One-Year Rockhounds" was a joint endeavor by Mike and Margaret Henson in the September *Ore-Cutts*. They documented their rock finds on this year's trek through the southwest. The Henson's shared their successes, disasters, and places they plan to visit again next year.

"How I Spent My Summer Vacation – Oregon on \$80 a Day" by Wayne Mills appeared in the September issue. Wayne chronicled his exploits while attending to family business in Oregon, and slipped some collecting time into his trip north.

"Pseudomorphs – MEOW" was written by Ralph Bishop, and appeared in the November bulletin. Leave it to Ralph, and his knack for adventure, to come up with this true story! Ralph, plus one big kitty, one dark cave, and a vivid imagination helped this story come to life.

"Agates in Munich 2005" appeared in the December issue. Sir Paul Howard, our member from "Down Under", uses his Aussie humor to enlighten us about all things agate. "Rubbernecking Stickybeaks" (his RV) will likely provide us with tales of adventure as Paul and Marie travel for a full year around Australia.

Awards will be presented in June 2006 at the CFMS Annual Gem Show in Calaveras. Additional information about the upcoming show can be found on the CFMS website.

Check our OMS web site at <http://omsinc.org>
or send email to info@omsinc.org.

Orcutt Mineral Society

Board Meeting

Mussell Senior Center, Santa Maria CA

6 December 2005

President Lucky Virgin called the meeting to order at 6:55 p.m. Board members present were: Lucky Virgin, Sharon Duncan, Bess Shields, Wes Lingerfelt, Sylvia Nasholm, Geary Sheffer, Bob Bullock, DeeDee Magri, Wayne Mills, and Debbie Hood. Guests were: Dick Shields, and Bill Hood.

Minutes of the previous General Meeting were approved as amended (Sharon Duncan welcomed Lucky Virgin back, not Debbie Hood). Wes Lingerfelt was absent from the November Board Meeting, but asked that the Board minutes reflect that the Raffle Committee was formed as a temporary committee. The minutes were not changed. Sylvia Nasholm was selected in November as the temporary Raffle Committee Chairperson.

Treasurer's Report was accepted as read.

Committee Reports:

Abused Children: Debbie Hood turned in an inventory of money collected, funds expended, and current inventory for 2005. Jan Ferguson volunteered to work on the ACF committee with Debbie. Social Services were given \$475.00 in gift cards (in \$5 increments). There are twice as many children being served by Social Services this year as compared to last year.

Annual Awards Banquet: Wes Lingerfelt prepared the agenda, and asked if there were any corrections or additions.

Bulletin: Bess Shields corrected the description of one raffle item that was donated by Lucky Virgin. He donated silver lace onyx, not travertine. Newsletter competition materials will be sent to CFMS tomorrow. There are two complete bulletins, and 10 individual articles being entered into competition.

Field Trips: Rob Bullock has a trip on 17 December planned to Refugio and Gaviota Beaches. Hopefully the tides and weather cooperate.

Scholarship: Wayne Mills submitted an article about our 2005 Hancock College scholarship winner that appeared in the December Ore-Cutts. Wayne turned in a request for 2006 scholarship money from Hancock College requesting \$700, due by 1 April 2006. Wayne has had no contact with Cuesta College, and a scholarship was not given to Cuesta in 2005.

Sunshine: Debbie Hood reported that Hans Borm is in Marian Hospital, and needed numerous transfusions.

Correspondence:

The following newsletters were received: Breccia, Rock Writings, CA State Mining & Mineral Museum, Rocky Review. Additionally, BLM sent us a brochure on Public Lands, and we received a thank you from American Red Cross for our donation to Hurricane Katrina relief for \$200.

Old Business:

1. Bill Hood has 34 reservations for the Annual Awards Banquet (2 are children). Bess will buy 8 pointsettias as door prizes for the Banquet.
2. Wayne Mills brought up the General Meeting Raffle. After much discussion, it was decided that the permanent Raffle Committee, chaired by Sylvia Nasholm, would meet immediately following the Board Meeting to work out guidelines, monitoring of money, and other problems. The committee will report back to the Board, and then to the General membership in January. Raffle money reconciliation will be noted in the 2006 Budget. Other raffle committee members are Rob, Wes, and Lucky. Lucky decided that he is unable to continue, and nominated Wayne to fill his position. Wayne made numerous suggestions concerning the raffle, but the discussion was curtailed since the items will be discussed in the committee meeting. It is the responsibility of the committee to discuss standing rules in its meeting tonight.

New Business:

1. Sharon Duncan submitted her resignation as incoming President citing the fact that she has not retired from her job as anticipated, and work commitments prevent her from accepting the Presidency. Bob Bullock agreed to step up, and will become the new incoming President. Debbie Hood volunteered to become President-elect. Wayne moved to accept Debbie's nomination. Sylvia Nasholm seconded the motion. Motion passed to accept Debbie's offer to run. Bill Hood volunteered to fill the open board member position. Other nominations will be taken from the floor at the Annual Awards Banquet on Saturday, and a vote will be held if there is a quorum present (1/3 of the general membership). If there is no quorum, a vote will be taken at the January General Meeting.
2. Bess asked why a scholarship was not given to Cuesta College this year. Normally they receive \$450. Wayne will attend to this problem, and will report back to the Board at the January meeting.

The meeting was adjourned at 8:14 p.m. by President Virgin.

Respectfully submitted,

Bess Shields, Secretary, OMS

Orcutt Mineral Society

Annual Meeting

Maria del Sol

10 December 2005

The Annual Business Meeting of the Orcutt Mineral Society was held at Maria del Sol, 1405 Main Street, Santa Maria CA on 10 December 2005. The meeting was presided over by President Lucky Virgin who opened the meeting at 12:20 p.m. Mike Henson gave the invocation. Lucky Virgin led pledge of Allegiance. There was a quorum present for voting purposes (21 voting members were in attendance).

Prior to the business and entertainment portions, a buffet the chefs of Maria del Sol prepared roast turkey, baked ham accompanying dishes, and desserts was consumed.

Lucky introduced our guests, then presented the Sweet Adeline's to entertain us with numerous holiday tunes. Outgoing President, Lucky Virgin, gave the President's Annual Report. Lucky cited a successful Gem Show, and interesting general meeting guest speakers as strengths this year. He thanked everyone for pitching in and working even harder during his prolonged recovery.

Wes Lingerfelt presented the yearly budget for 2006. Wayne Mills moved that the proposed budget be adopted, and was seconded by Debbie Hood. Motion passed.

Sylvia Nasholm, Raffle Committee Oversight Chair, was unable to attend today's meeting. Wayne Mills gave a report from the committee on the proposed new rules. A copy of the report will be printed in the Ore-Cutts. Sharon Duncan presented the Golden Bear award to Wayne Mills. Sharon explained that she has not retired as anticipated, and will be unable to assume OMS Presidency in 2006.

Wes called for nominations to fill one vacant board position, and ballots were distributed. Jill Nelson, one of the nominees, was not eligible to run since she has not been a member for the minimum one-year period.

Wes Lingerfelt (Parliamentarian) presented officer bars and pins to the outgoing Officer and Board members. He then installed the 2006 Officers and Board members. Geary Sheffer and Sylvia Nasholm will be sworn in at the January Board Meeting. (Note: The OMS accepted a resolution to add New President, Robert (Bob) Bullock to the mid-State Bank Account and remove Wayne Mills. The treasurer will take care of this item). New President, Bob Bullock said a few words about his plans for this year. A complete copy will appear in the *Ore-Cutts*.

The door prizes, 8 large poinsettia plants that adorned the dinner tables, were awarded. The meeting was adjourned at 2:35 p.m.

Respectfully submitted, Bess Shields, Secretary, OMS

Notes

OMS RAFFLE RECONSIDERED

At the December board meeting, the subject of the raffle was reconsidered. The recommendations that were voted on at the November meeting were based on the misconception that heretofore the raffle had been conducted illegally. Our Parliamentarian, Wes Lingerfelt, who was absent from the November Board meeting, corrected that misconception. A new set of guidelines for the raffle will be discussed at the December Annual Meeting.

At the December Board Meeting, the Board reviewed the raffle inventory and accountability sheet prepared by raffle chairperson, Wayne Mills. A raffle

oversight committee consisting of Sylvia Nasholm, Wes Lingerfelt, Lucky Virgin, Bob Bullock, and Wayne Mills was then formed with the hopes of keeping the raffle the enjoyable activity that it has been in the past.

Guidelines suggested by the committee are as follows:

1. The raffle shall consist of rocks and rock related materials only; all other donations will be gratefully received and given to the Treasure Chest, Country Store, or Abused Children Chairpersons. This includes about 30% of the raffle's current inventory.
2. All material donated to the raffle will be awarded the evening it is presented and acknowledgement given to the membership that same evening. About 20 items or piles of items will be raffled per night. Donators will be recognized at the meeting and in the next bulletin.
3. All meeting attendees will receive 3 free tickets when signing in and may purchase up to \$10 worth of additional tickets per person.
4. Existing raffle monies (\$324) will be turned over to the Treasurer and receipts presented for items purchased to supplement donations for future raffles.
5. All money collected at each raffle will be turned over to the Treasurer and ticket sales accounted for.
6. Due to time constraints, auctions will generally not take place at monthly meetings.

The purpose of our raffle is entertainment, to encourage attendance, and foster a feeling of "sharing" with fellow members. Members having questions or comments on the conduct, goals or inventory of the raffle are requested to ask a member of the raffle committee. Members are cautioned that the purpose of the raffle is to encourage attendance at the meetings, and for the enjoyment and entertainment of the members. If the items offered are not worth buying, don't buy tickets. Do not consider ticket purchases as donations. (Report delivered to the membership at the Annual Banquet by Wayne Mills.)

Web Sites of Note:

January 2006

Cenozoic/Mesozoic Volcanism:

<http://geology.csupomona.edu/docs/sierra.html>

California Federation of Mineralogical Societies:

<http://www.cfmsinc.org/>

American Federation of Mineralogical Societies:

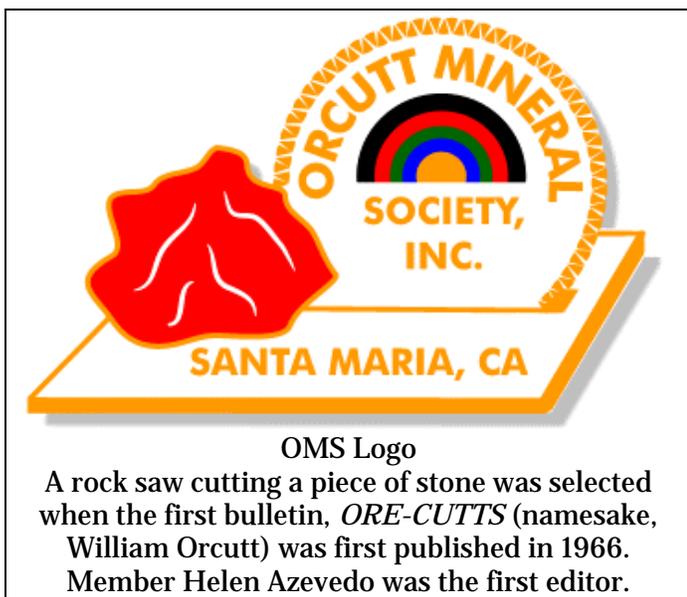
<http://www.amfed.org/>

Official Stuff

OMS Purpose

Founded in 1958, and is named after William Orcutt, a geologist and civil engineer who worked in the Santa Maria Valley as a district manager for Union Oil Company in 1888. In 1889, Orcutt discovered the fossil wealth of the La Brea Tar Pits, one of the most significant fossil finds in paleontological history. The Society is a non-profit club, dedicated to stimulating an interest in rocks and

minerals. The club offers educational programs, field trips, youth activities, and other opportunities for families and individuals to pursue an interest in collecting and lapidary treatment of rocks, fossils, gems, minerals, and other facets of Earth Sciences. In addition, a goal of this Society is to promote good fellowship and proper ethics in pursuit of the society's endeavors. Operating rules have been set forth to guide the Officers and members of the Society in accomplishing these purposes. Affiliations: California Federation of Mineralogical Societies and American Federation of Mineralogical Societies.



Orcutt Logo

A rock saw cutting a piece of stone was selected when the first bulletin, *ORE-CUTTS* (namesake, William Orcutt) was first published in 1966. Member Helen Azevedo was the first editor.

2006 OMS Officers

President	Robert Bullock	(805) 928-6372
President Elect	Debbie Hood	(805) 481-6860
Secretary	Bess Shields	(805) 937-0357
Treasurer	Wes Lingerfelt	(805) 929-3788
Immediate Past President	Lucky Virgin	(805) 929-4525
CFMS Representative	Wes Lingerfelt	(805) 929-3788

2006 OMS Board Members

Geary Sheffer	(805) 925-8009
Sylvia Nasholm	(805) 481-0923
Bill Hood	(805) 481-6860
DeeDee Magri	(805) 595-2755
Wayne Mills	(805) 481-3495

Orcutt Editors

Dick and Bess Shields	(805) 937-0357
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Webmasters

Dick Shields	(805) 937-0357
Wes Lingerfelt	(805) 929-3788

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Orcutt Membership dues are \$18 per year. Junior Membership is \$9.00. New membership dues are pro-rated from January 1st of the first year.

January 2006 Calendar

Tuesday January 03, 2006 7:00 PM - 8:30 PM	Orcutt Board Meeting -- Mussell Senior Center. All members are welcome at this business meeting.
Tuesday January 10, 2006 7:00 PM - 9:00 PM	Orcutt General Meeting -- Mussell Senior Center. <ul style="list-style-type: none"> • Program: "Dinosaur Bones" by Ralph Bishop • Display: Your favorite acquisition of 2005 • Refreshment: Donuts (care of the Orcutt Board of Directors).
Saturday January 14, 2006 8:30 AM - 5:00 PM	Field Trip to Jalama Beach -- We will depart Mussell Senior Center Parking Lot at 0830. A county park entrance fee is charged for each vehicle so carpooling is encouraged. Walk over beach sand and rock to a travertine outcropping. There is oil on the beach so bring old shoes for the walk. Bring a lunch or eat in the Jalama Café on the beach. Contact Bob Bullock at 928-6372 for details.
Saturday January 21, 2006 8:00 AM - 10:00 AM	Orcutt Highway Cleanup -- Intersection of Highway 101 and 166 After the cleanup we have coffee and pastry at "Francisco's Country Kitchen" in Santa Maria. Contact Bob Bullock at 928-6372 for details.
Saturday January 28, 2006 8:15 AM - 9:15 AM	Orcutt Monthly Breakfast -- "Francisco's Country Kitchen" in Santa Maria. Call Ken Kreh at 343-7749 for details.

February 2006 Calendar

Tuesday February 7, 2006 7:00 PM - 8:30 PM	Orcutt Board Meeting -- Mussell Senior Center. All members are welcome at this business meeting.
Tuesday February 14, 2006 7:00PM - 9:00 PM	Orcutt General Meeting -- Mussell Senior Center. <ul style="list-style-type: none"> • Program: "MegaFloods" by Dick Shields • Display: Sweetheart rocks (your interpretation) • Refreshment: Cakes, Cupcakes
Saturday February 18, 2006 8:00AM - 5:00 PM	Field Trip to Jade Cove -- Meet at Mussell Senior Center Parking Lot Observational trip to a classic location. Bring a lunch and bottled water. Some hiking required. Contact Bob Bullock at 928-6372 for details.
Saturday	Orcutt Monthly Breakfast --

February 25, 2006 8:15 AM - 9:15 AM	"Francisco's Country Kitchen" in Santa Maria. Call Ken Kreh at 343-7749 for details.
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8:00 AM -10:00 AM	After the cleanup we have coffee and pastry at "Francisco's Country Kitchen" in Santa Maria. Contact Bob Bullock at 928-6372 for details.
Saturday March 25, 2006 8:15 AM - 9:15 AM	OMS Monthly Breakfast – "Francisco's Country Kitchen" in Santa Maria. Call Ken Kreh at 343-7749 for details.

March 2006 Calendar	
Tuesday March 7, 2006 7:00 PM - 8:30 PM	OMS Board Meeting -- Mussell Senior Center. All members are welcome at this business meeting.
Saturday March 11, 2006 8:30 AM – 5:00 PM	Field Trip to Carrizo Plains -- Trace the San Andreas Fault from Highway 166 north through the Carrizo Plains to Soda Lake. If we are lucky, we'll hit the highlights of wildflower bloom. Bring lunch and water. Short hikes possible. Contact Bob Bullock at 928-6372 for details.
Tuesday March 14, 2006 7:00 PM - 9:00 PM	OMS General Meeting -- Mussell Senior Center. <ul style="list-style-type: none"> • Program: TBD • Display: Rocks that look like something or someone. • Refreshment: Donuts (care of the OMS Board of Directors).
Saturday March 18, 2006	OMS Highway Cleanup -- Intersection of Highway 101 and 166

<p>Orcutt Mineral Society P.O. Box 106 Santa Maria, CA 93456</p>
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ADDRESS CORRECTION REQUESTED