West side board meeting minutes 05/15/07

Stu opened the meeting at 7:40pm

Kathy gave the treasurer's report. Bills were submitted for newsletter expenses, liability insurance, more locks for the gate at Walker Valley, and the Walker Valley lease. A motion was m/s/p to pay all of the bills.

Most of the meeting consisted of a discussion of the situation at Saddle Mt petrified wood collecting area. Sections 7,11, and 13 are under private ownership and the owner is charging $1/pound to collect petrified wood on his property. The BLM owns the surface rights in Sections 7, 11, and 13, but there is some question about the validity of the owner's claim to the subsurface rights. In the meantime it is probably wise not to even collect on the surface in these sections.

Rockhounds may continue to collect in Section 8, 12, and 14 as these sections are still held by the BLM. According to the BLM, they also own the roads in all of the sections so it is OK to use the roads even in Sections 7, 11, and 13.

Bill Moser passed out some maps of the Saddle Mt area with the GPS co-ordinates of the section corners. These would be useful mostly as an aid to know where you are in the field.

Judy Ayres asked a question about how one might go about finding information on Forest Service road closures. Ed Lehman said that the Portland regional FS office would have this information posted on their website http://www.fs.fed.us/r6/r6nf.htm.

Bruce Himko reported that Longview Fiber has been sold, the sale will be finalized in June. It is not known if access to the Kalama digging areas will change. Bruce also reported that there are people going in the back way and undermining trees, digging in the creeks and generally making a mess of the collecting areas. If this activity continues, the new owners will have even less incentive to keep the area open to collecting.

Ed Lehman reported that the ownership of the First Creek collecting area will remain unchanged.

Meeting adjourned,
Submitted by Glenn Morita, Secretary Pro-Tem

Saddle Mountain petrified wood site field trip 3-31 to 4-01-07

By Ron Graichen

The productive site is in the foothills to the east of the town of Mattawa, Washington. Agatized and opalized wood occurs in a lava-baked soil horizon between basalt flows. A cap of basalt covers the soil that contains trees of moderate to large size. Several trips to the site by Walt Camerer, Pat Swinth and others found a vertically standing large tree with stump and flaring roots. The ultimate exposure of this find required a hole about 15 ft in diameter and 15 ft deep to fully extract the petrified tree.

Weathering of overlying volcanic rocks provided the silica-bearing solutions necessary to create the colorful, much sought-after wood. The layering of basalt-soil-basalt occurs multiple times within the Columbia River flood basalts and the collection site is part of this, having once been near horizontal and now tilted about 7 degrees westward. A small canyon transects this tilt creating a V-shaped outcrop pattern down to the canyon bottom and up the other side. Petrified wood chips and diggings follow this V-pattern.

Digging was hard but the shared discovery meant that everyone came home with good stuff! Ask Tom Hillis what he thought of the dig.

From Carny Hound 04/07

A word about quartz

Seiko first manufactured a watch with a quartz crystal. Nearly every material in nature will vibrate or oscillate at its own frequency if energized to do so. Some things are affected by temperature and other natural factors. Quartz is quite reliable and stable and vibrates at 32,768 times a second. This becomes a standard of reference for a watch movement to rely on and that's what makes a quartz watch keep such good time. A sliver of quartz is all it takes.

For even better reliability, the US Naval Observatory and most countries around the world use atoms of cesium. It is a silvery white metal and the atoms oscillate at 9,192,770 times a second. It is so reliable that the world times are kept by it, and are accurate to within a few nanoseconds a day. A nanosecond is a billionth of a second.

From Psephite and others via The Petrified Digest, 04/07

Fissicking on Fossils

by Cecilia Duluk, MWF Paleontology

Even the most casual fossil collector occasionally runs into a "fossil oddball" -one of those strange looking preservations or imprints that is usually impossible to identify. I'm not talking about unusual preservation or partial fossils that "look like a-- 'petrified dandelion,'" such as a horn coral imbedded in limestone broken across the cup that resembles that weed.

No, I speak of the true "oddball," an obviously fossilized something that even the professional paleontologists can't really explain. After many such fossils have been found in a certain locality or strata (usually by a bunch of interested amateur collectors), the pros might get involved, which may (or may not) result in a published solution. On the other hand, such studies may result in even more confusion as to what the "oddball" really was as a living organism, because no modern counterparts exist.

The number one classic example of such a fossil is, of course, the TULLY MONSTER, discovered in the Mazon Creek, Illinois concretions by Francis Tully in the 1950s. Fourteen years and hundreds of "monster" specimens later, Drs. Eugene Richardson and Ralph Johnson of the Chicago Field Museum named the "oddball" Tullimonstrum gregarium and described it as "a soft-bodied marine invertebrate animal" that was--like nothing ever seen before!!! The Tullimon- strum, in fact, is still an oddball, having been variously classified as a worm, a shell-less mollusk, and a planktonic snail!

Few fossil oddballs retain the mystery and romance of the Tully, but many are interesting enough to fill a series such as the one begun in this issue. The last ten years or so have, in fact, at least provided some answers for me to a few of the "What IS that fossil odd- ball?" question. In future issues, look for articles on The Blob, the Cornucopia, the "screw," and the "that's the weirdest crinoid I've ever seen" fossils.

One important thing to remember if you collect an oddball-ALWAYS NOTE THE EXACT LOCATION where you found it. You might not know what "it" is, but if you know WHERE IT CAME FROM you can at least put it (in most cases) in a time frame.

Unfortunately, some collectors will thumb through a large book like Index Fossils of North America (Shimer & Shrock), see an illustration that LOOKS LIKE their oddball," and stick that name on it. Then later, any quest to really identify it is doomed to failure because-they put a genus name on it that belongs to an Ordovician species, when in fact, the locality where they found their "oddball" was all Pennsylvanianian Age strata!

The best bet is to FIRST study some geologic time charts and other books on "what evolved when," not for SPECIFIC dates (which are always being reevaluated up and/or down by a few million years) but for the general flow of evolutionary development. This can be a quite inexpensive undertaking. I would like to hereby recommend an exceptionally clear booklet, Evolution and the Fossil Record by John Pojeta, Jr. & Dale A. Springer, pub. 2001, by American Geological Institute, Alexandria, Virginia (under $10 from www.agiweb.org) also sponsored by The Paleontological Society. Write for two FREE U.S. Geological Survey booklets Geologic Time by William New- man; and Fossils. Rocks. and Time, by Lucy Edwards(FOR FUN, you might also ask for Birth of the Mountains (Southern Appalachians) by Sandra Clark, and Deserts Geology and Resources by A. S. Walker. Lots of geology in them-but remember, paleontology is just geology with "oddballs" in it!) All four of the above may be obtained for FREE from the U.S. Geological Survey, Information Services, Box 25286, Federal Center, Denver, Co 80225.

From West Seattle Petroglyphs March 2007, via Stone Age News 04/07

Volcanic bulge may pinpoint next eruption

17 May 2007
NewScientist.com news service
Catherine Brahic

The world's largest volcano is bulging and the swelling could help pinpoint where the Hawaiian volcano will erupt next, researchers say.

The finding could save lives by helping officials to plan evacuations of residents living on the volcano's flanks, although the researchers are no closer to predicting when an eruption will occur.

Falk Amelung at the University of Miami, US, and colleagues used satellite radar imagery to monitor two bulges on the flank of Mauna Loa in Hawaii between 2002 and 2005. They tried to pinpoint what was causing the swelling using computer models of the volcano.

Mauna Loa is a shield volcano, meaning it erupts from rifts in its flanks, rather than out through a crater at the top.

The volcano has two long fractures in its crust that extend down from the summit around the south-west rift zone, from which magma can flow during eruptions. The bulges, which have been swelling since May 2002, are 15 kilometers across and 20 centimeters high.

Rift opens

As they tweaked their computer model, the researchers found that the only way to replicate the swelling was if magma was pushed out through the southwest rift zone.

They now believe that a 1983 earthquake and a 1984 eruption unclamped the rift zone, making it possible for the magma to push into it. As it does so, it pushes the flanks of the rift apart, creating the bulges.

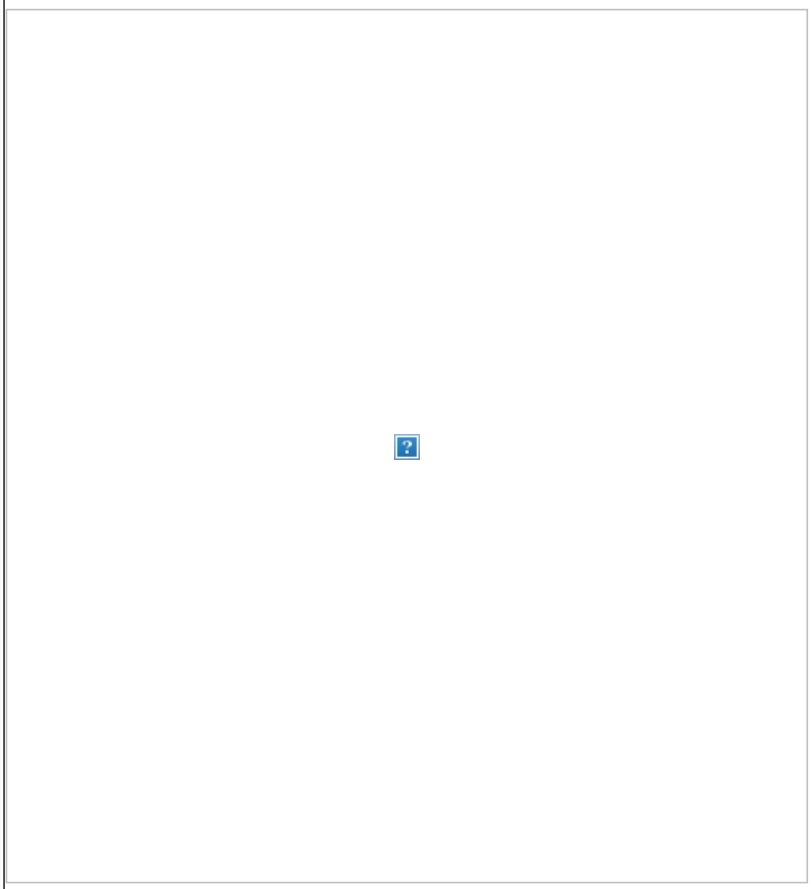
"We now have a good idea where the next eruption is most likely to occur," says Amelung. He expects the pressure that the magma is placing on the rift to first trigger an earthquake, followed by an eruption.
Forecasting tool

Although the team is not able to predict when the next eruption will occur, Amelung says the rate at which the magma is pushing into the rift zone has significantly slowed since 2006.

"It is now about one-quarter to one-third of what we had between 2002 and 2005, so we have no indication that it will erupt anytime soon," he told New Scientist.

He says the technique could be used to monitor and forecast eruptions on other large shield volcanoes, such as Mount Etna in Italy, Piton de la Fournaise on the Reunion island, and Kilauea in Hawaii.

Journal reference: Science (vol 316, p 1030)



Radar satellite images show the swelling in Mauna Loa's flanks (Image: S. Baker/F. Amelung/U. of Miami)

Earth's Crust Missing In Mid-Atlantic

Science Daily — Cardiff University scientists will shortly set sail (March 5) to investigate a startling discovery in the depths of the Atlantic.

Scientists have discovered a large area thousands of square kilometers in extent in the middle of the Atlantic where the Earth's crust appears to be missing. Instead, the mantle - the deep interior of the Earth, normally covered by crust many kilometers thick - is exposed on the seafloor, 3000m below the surface.

Marine geologist Dr Chris MacLeod, School of Earth, Ocean and Planetary Sciences said: "This discovery is like an open wound on the surface of the Earth. Was the crust never there? Was it once there but then torn away on huge geological faults? If so, then how and why?"

To answer some of these questions Dr MacLeod with a team of scientists, led by marine geophysicist Professor Roger Searle, Durham University, will travel to the area which lies mid-way between the Cape Verde Islands and the Caribbean.

The expedition will be the inaugural research cruise of a new UK research ship RRS James Cook. The team intends to use sonars to image the seafloor and then take rock cores using a robotic seabed drill. The samples will provide a rare opportunity to gain insights into the workings of the mantle deep below the surface of the Earth.

Progress of the cruise can be monitored via a live web link to the ship: http://www.noc.soton.ac.uk/gg/classroom@sea/JC007/

Note: This story has been adapted from a news release issued by Cardiff University.