Minutes of the 09/21/04 Westside Board Meeting

Meeting was called to order by Pres. Stu Earnst at 7:40 PM. We held the meeting outside because no one had the key to the clubhouse.

Kathy Earnst gave the treasurer's report.

Wagonmaster's:
Ed reported that the field trip to Kaner Flats had a small turn out. Some nice, large thundereggs were collected and Ed showed us a sample. Ed also reported that new locality was found that has more solid thundereggs.

The road to Peek-a-Boo Lake will be fixed sometime next year so the hike in won't be quite as long. There was a good turn out at the field trip and lots of thundereggs were collected.

Stu reported on his scouting trip to Utah. This is in preparation for next summer's NW Rockies week-long field trip. Stu visited the Dugway geode beds, Topaz Mountain, the septarian nodule mine, and localities for trilobites, sunstones, obsidian, and plume agate. Stu hopes that there will be a good turn out for next year's trip.

Old business: none

New business:
Bob Pattie submitted bills for printing supplies and labels. He also submitted a bill for the printing of the map booklets.

Stu will get new locks for the gate at Walker Valley. He has found a store that charges less than what we have been paying.

Vi Jones asked Bob O'Brien and Ed Lehman what the legal limit for collecting agate, jasper, and obsidian is on BLM lands. See BLM website: http://www.blm.gov/nhp/efoia/or/fy2000/im/m2000-023.htm

Ed reported that a trail pass is no longer required at Heather Lake.

Meeting adjourned due to cold and dark.
submitted by Glenn Morita

Ellensburg Blue Agate are extracted for use as gemstones in March 1905

In March 1905, Austin Mires, an attorney who served as Ellensburg's first mayor, extracts bright blue agates from the agate beds around Ellensburg and sends them to Seattle to be set into rings.

Agate beds abound in the Teanaway basalt layers throughout the Kittitas region. Teanaway Basalt is the reddish-colored basalt dating from the Eocene epoch (50 million years ago) of geologic history. In the Ellensburg agate fields it is mixed with the darker brown Columbia Plateau basalt from the more recent Miocene epoch (24 million years ago).

The Ellensburg formation dates from the Miocene epoch, and is largely composed of easily eroded rock and rock debris. This "biscuit" topography, combined with the movement over time of the Yakima River and its tributary creeks, encouraged the formation of geodes and agates.

Although the agate beds between Thorp and Ellensburg yield a variety of agates, it is the brightly colored "Ellensburg Blue" agates for which the beds are famous. These agates are unique to this region.

John Prentiss Thomson, whose father's jewelry store first promoted the stones, reported that local Native American tribes eschewed the agates for use in arrow tips, although they used them in trade with whites. Local sheepherders at the turn of the nineteenth century reported the sky blue rocks prominently visible in the hillsides.

About a decade after Austin Mires had Ellensburg Blue agates set as jewelry, he and his wife began to cut and polish the stones in their home.

By May 1913, local native people had shown jeweler J. N. O. Thomson where to find the agates. Local news stories spurred an agate-hunting fad among tourists, which continued through the 1940s.

Virtually all of the original blue agate beds are now (2003) part of private land. Many of the beds are cultivated, making agate hunting nearly impossible. Farmers occasionally turn up the stones while plowing.

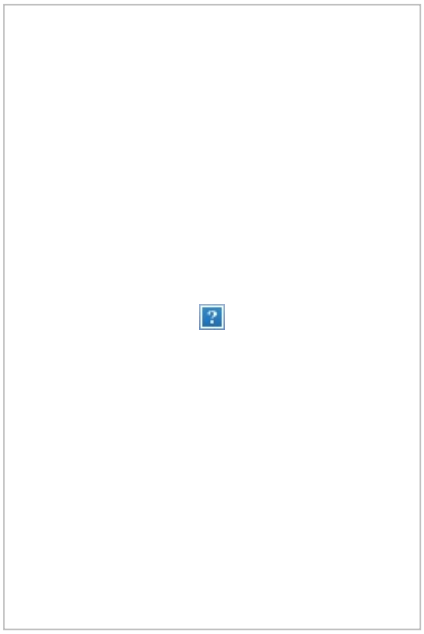
Sources:
John Prentiss Thomson, Ellensburg Blue (Ellensburg, WA: Kittitas County Historical

Society, 1961).

By Paula Becker, January 25, 2003
Updated March 25, 2004
File Number 5121

from Issaquah Valley Rock Club newsletter, 9/04

Agate shop in Ellensburg Postcard



Ellensburg Agate and Bead Shop sign, October 2003

Photo by Priscilla Long

Meteorites may have delivered phosphorous

Alexandra Goho

From Philadelphia, at a meeting of the American Chemical Society

Phosphorus is an essential atomic ingredient in DNA, RNA, and cell membranes. But, compared with other must-have elements such as carbon, hydrogen, oxygen, and nitrogen, phosphorus is the least abundant on Earth, says Matthew Pasek of the University of Arizona in Tucson. With so little phosphorus in the terrestrial environment, Pasek wondered how life could have emerged on Earth 4.5 billion years ago. The answer, he proposes, is meteorites.

Phosphorus occurs naturally on Earth in the form of the mineral apatite. However, previous experiments showed that dissolving apatite in water releases only small amounts of phosphorus, presumably not enough to have supported the origin of life.

In recent years, evidence has been accumulating for the theory that meteorites supplied Earth with large amounts of organic material, providing the necessary building blocks for making the first forms of DNA, proteins, and cells. Pasek and his colleagues theorized that meteorites could have delivered phosphorus as well.

Meteorites carry phosphorus mostly in an iron-nickel phosphide mineral known as schreibersite. So, the researchers mixed schreibersite with water to see what chemicals would leach out. They found that several different phosphorus-containing compounds emerged, one of which was phosphate, a key player in photosynthesis and many other biochemical reactions. The amount of phosphate released from schreibersite was 10,000 times that produced by a similar watery preparation of apatite.

The researchers suspect that iron meteorites brought phosphorous compounds to Earth since that type of meteorite is known to contain significantly more schreibersite than other types do.

References:
Pasek, M.A., V.D. Smith, and D.S. Lauretta. 2004. Meteorites as a supplement and/or source of phosphorus for the origin of life. 228th American Chemical Society National Meeting. Aug. 21-26. Philadelphia.

Sources:

Matthew A. Pasek
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from Science News 09/11/04

Ancient sea creature sucked in prey

A bizarre marine reptile used a neck nearly twice the length of its body to capture its prey, 230 million years ago. Fish saw only its small head in murky waters and, when they came too close, the animal quickly expanded its formidable throat to suck in its dinner.

The astonishing length of the neck of Dinocephalosaurus was revealed when a near complete skeleton was unearthed in China by Chun Li of the Institute of Vertebrate Paleontology and Paleoanthropology, in Beijing. The length took researchers by surprise, since the reptile had previously been known from only a fossil skull.

Dinocephalosaurus belongs to a little-known group called protorosaurs which first appeared at least 250 million years ago and were probably related to the ancestors of dinosaurs.

Olivier Rieppel, of the Field Museum of Natural History in Chicago, US, and another member of the team, told New Scientist he first thought the skeleton was a long-necked plesiosaur because of its small body. However, a closer look revealed it to be the longest-necked protorosaur ever found.

Some other protorosaurs evolved extended necks, but most were terrestrial and their necks did not grow remarkably long. The main exception was Tanystropheus, which had 12 long neck vertebrae. But that neck was only about half as long as Dinocephalosaurus's, which boasted 25 vertebrae. By contrast, all modern mammals - even giraffes - have only seven neck vertebrae.

Fully aquatic
Tanystropheus spent some time in the water, but was not as fully aquatic as Dinocephalosaurus, whose limbs had evolved into flippers. Cervical rib bones limited the flexibility of the protorosaurs' necks, so they could not have darted out of the water to seize their prey, as plesiosaurs are often imagined as doing.

A third member of the team, Mike LaBarbera of the University of Chicago recognised two possibilities when he studied Dinocephalosaurus. The arrangement of its longer neck ribs meant that muscle contraction could rapidly straighten the neck and stretch the throat wide simultaneously.

That allowed it to suck in water and swallow fish in its path as it lunged forward, before the fish could sense the motion and escape. Some fish and turtles use a similar strategy today by expanding their mouth cavities.

An experienced diver, LaBarbera also realised that long necks can combine with the natural murkiness of sea water to hide the protorosaur's body. The reptile's head was small, he told New Scientist, so "if you're a fish, you see something nearly your size. But by the time you figure out it's bigger, it's eaten you."

Plesiosaurs may have taken advantage of the ploy when they evolved 30 million years later, but their necks were more flexible, possibly allowing different hunting strategies.

Journal reference: Science (Vol 305, p 1931)
Jeff Hecht

from:
19:00 23 September 04
NewScientist.com news service

An artist's impression of the long-necked Dinocephalosaurus (Image: AAAS/Science; Illustration by Carin L. Cain)