Monthly Bulletin of the
West Seattle Rock Club, Inc.
Seattle, Washington

Website:
http://www.westseattlerockclub.org

Our Club:
Practices the Rockhound Code of Ethics

Meetings:
Visitors are always welcome!

WEST SEATTLE PETROGLYPHS

Mike Wall, Editor
P.O. Box 16145
Seattle, WA 98116
email: mike_wall@yahoo.com

HAPPY BIRTHDAY WSRC!!!

WEST SEATTLE ROCK CLUB, INC.

Mailing Address: P.O. BOX 16145, Seattle, WA 98116

The purpose of this Club is to promote the study and enjoyment of the Lapidary Arts with good Rock-hounding and good fellowship; and to further education and lapidary skills for all; to conduct field trips for exploration and collection of minerals, gems, rocks and fossils; to promote shows and displays; to publish a monthly periodical known as *West Seattle PETROGLYPHS* relating to club activities.

****

OFFICERS AND BOARD OF DIRECTORS (2013):

President	Michael O'Clair	(206) 938-1541
Vice President	<Open>	<Open>
Secretary	Diane Christensen	(206) 938-0790
Treasurer	Audrey Vogelpohl	(206) 932-3292
Federation Director	Audrey Vogelpohl	(206) 932-3292
Director at Large	Ken Schmidt	(206) 932-3626
Mineral Council Reps	Leroy Christensen	(206) 938-0790
Seattle Regional Reps	Lyle Vogelpohl	(206) 932-3292
Newsletter - Editor	Mike Wall	(206) 935-4953
Current Past President	Leroy Christensen	(206) 938-0790

****

COMMITTEE CHAIRPERSONS (2013):

2014 Show Co-Chairpersons	**<Open>**	**<Open>**
	<Open>	**<Open>**
Programs	***<Vice President>***	***<Vice President>***
Refreshments/Hospitality	Janet Francisco	(206) 940-8344
Historian	**<Open>**	**<Open>**
Field Trips	**<Open>**	**<Open>**
Webmaster	Donn Ullery	(206) 633-0721

****

AFFILIATED WITH:

Northwest Federation & American Federation of Mineralogical Societies
Seattle Regional Gem and Mineral Show Committee
Washington State Mineral Council
ALAA – American Lands Access Association

****

Meetings are held on the Fourth Wednesday of each month,
except for November which is the **THIRD** Wednesday and no meetings in July and December
The meetings are held in Adams Hall of the *Tibbetts United Methodist Church*
3940 41st S.W. (corner of 41st S.W. and S.W. Andover Street) Seattle, WA
6:00 PM – Junior Meeting 7:00 PM – Adult Meeting
Dues are: $20.00 first year (including name badge), then: $10.00 per adult member per year
or $15.00 for 2 adults in same family, $3.00 per junior member per year

VISITORS ARE INVITED AND ARE ALWAYS WELCOME TO ALL MEETINGS

Club Calendar

January 22, 2013

Junior Meeting (6:00 pm)
Program: WSRC Show – Junior Participation

General Meeting (7:00 pm)
Program: WSRC Birthday Celebration & Raffle
Show & Tell: Rocks that might Fluoresce

President's Message

Happy New Year! Although the weather is not very conducive to much local rock collecting, there is plenty to do inside. The club is in the process of gearing up for the upcoming show. As always, we welcome volunteers to assist in all aspects of show planning and presentation. Talk to Lyle and Audrey if you are interested in helping out. Also, now is the time to start planning your display case for the show. Dust off the best rocks and minerals from your collection and display them! It's fun to see the mineral specimens that members normally have squirreled away in their basements and back yards.

As some of you may know, this will be my last President's Letter. My term as President of the West Seattle Rock Club is soon to end. I'd like to thank all the Board members who have made my job easy this past year. (I needed all the help I could get.) Particular thanks go to Lyle and Audrey for repeatedly shouldering the responsibilities for the show and making sure I knew what to do and when I needed to do it; I think all of us will readily acknowledge that there would be no West Seattle Rock Club without Lyle and Audrey's guidance and help over the years. I also like to thank the members for all your help and support this past year. You all make this club a wonderful organization and your efforts have made our meetings, picnics and the show a great success this last year.

I look forward to 2014. Lucie, Shelley and I are already planning field collecting trips when it gets a little drier out there. Hopefully, we'll see you all at meetings, at the show and on future field trips.

Michael R. O'Clair, WSRC President

What's Inside

WSRC – Member News

January Birthdays

Garnet - a clear, dark red gem, the stone is known as the stone that clears the path for new beginnings and helps dispel negative feelings that keep you trapped by fear or guilt. A garnet will provide you with a boost of confidence.

7 - Anne Higuera
7 - Lyle Vogelpohl
8 - Grayson Hailey
8 - Brooke Wagner
9 - Michael O'Clair
10- Mary Bentler

February Birthdays

Amethyst - a stone that vibrates with creativity, tranquility and understanding. It is said that slipping an amethyst stone under your pillow while you sleep you will enjoy "sweet dreams".

2 - Delila Higuera
8 - Logan Higuera

West Seattle Rock Club – General Meeting Minutes

November 20, 2013

Business

The meeting was call to order by club President Michael O'Clair.

Lucie O'Clair reported there were 11 adult members, 3 junior members and 3 guests. The winners of the door prizes were Michael O'Clair, Ian Atkinson and Arthur Ortiz. Audrey Vogelpohl informed the guests that she has applications to join the club if they are interested.

Michael asked if there were any changes to the October minutes. Since there were none, they will stand as printed.

Audrey reported there were a couple of new members, but they were not present at this meeting.

Editor Mike Wall announced that there will not be a Petroglyphs in December. The next Petroglyphs will be January 2014.

Michael then went over the 2014 field trips and the 2013 - 2014 upcoming shows.

Treasurer, Audrey mentioned the NW Federation fees are due (and will be paid); the club dues are also due now.

Michael then noted that there are still some open positions on the Board. A Show Chairperson is needed as well (for the show in April). Audrey also mentioned there are openings at the NW Federation level as well. One position open is a "gate keeper" position for receiving "Rockhound of the Year" information, which is then submitted to the American Federation.

Diane Christensen went over the details regarding the upcoming holiday party on December 4th, 2013 from 6 to 8 p.m. at Round Table Pizza in Burien.

Show and Tell

- Lyle Vogelpohl brought opals in all stages. He had some Spencer opal's glued to a black masonite backing, and some with optical crystals on them. He also brought some moss agate finely sliced that can be put on a black background and some plume agate also thinly sliced.
- Brooke Wagner and Rich Babcock brought some jasper they found between Burien and Alki, and one they found in the Cedar River.
- Diane Christensen brought a polka dot agate that looked like an underwater scene.
- Mary Bentler brought a large petrified wood log.
- Lucie O'Clair brought a piece of quartz with pyrite on it that was given to her by Bob Jackson.
- Ian Atkinson brought a specimen that was iron ore and hematite.
- Maceo Tinsley showed off a vial of gold, ruby's and sapphires that he won during a drawing earlier tonight.
- Barry Nevin brought some rough carnelian, and some polished jasper. He also had some banded agate, a jasper egg and a rock he called "thunder frog".
- Ken Schmidt brought some polished rocks which included some petrified wood, carnelian and a piece of a Mexican coconut.

Brooke Wagner and Rich Babcock won the prize.

Program

The program was a 15 minute movie on the Great Ice Age Floods. The movie showed how Lake Missoula filled

(Continued on page 5)

(Continued from page 4)

up with water and flooded the area all the way from Montana to the west coast. The flooding happened on numerous occasions. As the water rushed out at speeds up to 65 miles per hour, it cut valley's, undercut rock formations, exposed volcanic formations and also moved large house sized boulders to new locations.

After the movie, the meeting with adjourned, and refreshments were served by the O'Clair's.

Respectfully Submitted,
Diane Christensen, WSRC Secretary

The Vogelpohls Honored by the AFMS Scholarship Foundation

Lyle and Audrey Vogelpohl were selected as 2014 Honorary Award recipients from the Northwest Federation of Mineralogical Societies for the American Federation of Mineralogical Societies Scholarship Foundation. With this Honorary Award goes the privilege of selecting a school, or schools, and assist in the selection of two students to receive scholarship grants from the Foundation to help them achieve their educational goals. Each grant will be for the school Fall Semester 2014 and is for $4,000 for each student.

These beneficiary students must be working toward a Master's or Doctor's degree with a major in any of the Earth Sciences. The first Honorary Award was given in 1965. At this time (2013) rockhounds from all over the U.S. have paid out $1.5 million dollars to graduate students in Earth Sciences through this Foundation.

Lyle and Audrey in 1968 went looking for a family hobby and found a hobby AND a multitude of like minded friends. To this day they continue being active participants in the West Seattle Rock Club. They added the Northwest Federation of Mineralogical Societies when Lyle was appointed NFMS Treasurer in 1976. He was re-elected 4 times and then continued by being elected Vice President and then serving as the NFMS President in 1981-1982. During this same time Audrey was NFMS Directory and Advertising Chair.

In 2000 when Toby Cozens (also of the West Seattle Rock Club) resigned as NFMS Treasurer due to poor health, Lyle was again appointed to fill the position. Annually he has been re-elected and continues to handle the NFMS funds. Since 2003 Audrey has chaired various committees of the NFMS - Resolutions, Directory and is currently Junior Program Chair.

Lyle and Audrey have attended as participants or teachers at the NFMS Rockhound Retreat since its inception in 2005. They each share their own facet of the hobby as speakers and demonstrators at clubs and shows around the Northwest including being leaders at the Labor Day Family Lapidary Weekend put on by the Oregon Museum of Science and Industry in Central Oregon.

They agree "this is a family hobby which we continue to enjoy in all of its aspects. Thank you for the honor of being able to select the next scholarship recipients looking to complete their graduate studies in the Earth Sciences."

Officer Nominations for 2014

Election will be held at the January meeting.

- President Bo Jeffers
- Vice President Merryl Jeffers
- Secretary Diane Christensen
- Treasurer Audrey Vogelpohl
- Director at Large Ken Schmidt
- Federation Director Audrey Vogelpohl
- Mineral Council Rep Leroy Christensen
- Newsletter Editor Mike Wall

The Executive Board also includes the immediate past president, Michael O'Clair, and all Committee Chairs.

Junior Program

Happy New Year, Junior Rock 'n Rollers!

Super wonderful holiday party we were so fortunate to attend - a shout-out to the planners and producers of that gig! Thank you, Brooke and Diane! It was a lovely way to spend the evening with our rock club folk!

This month's topic for conversation with the Juniors is a general discussion on our Spring 2014 WSRC

(Continued on page 6)

(Continued from page 5)

Rock & Gem show, to be held in April 27-28. We'll talk about our display cases and any other ideas the Juniors might have for additional participation: craft table, fundraising opportunity (selling their own crafts), games, info booth, etc. Bring your thinking caps and wonderful creativity and we'll see what we can come up with! We Juniors folk meet at 6:00 pm on January 22nd!

WSRC's General Meeting will be held at Tibbett's Church on January 22 at 7:00 pm. We'll be celebrating the Rock Club's Birthday and there will be a raffle, so don't miss out if you can help it!

~April Hichens, your fearless Rock-collaborator

Dues are Due

Each membership is for the calendar year (Jan 1 through Dec 31). Please remit as soon as possible:

$3.00 per junior member;
$10.00 per adult member;
$15.00 for 2 adults in the same household.

January Program

Invitations have been sent to our club's past presidents requesting their presence. We will have a birthday cake, a raffle (tickets at 25 cents each) for several items, election of 2014 club leaders, presentation of new club members, awarding of badges to Juniors, and update on items since our November meeting.

The Discovery of Fluorite

by Andrew A. Sicree

Fluorine is a marvelously dangerous element. It is so dangerous that several of the early scientists who experimented with it were blinded or killed (they are sometime referred to as the "fluorine martyrs"). It is the most strongly reactive element.

In the mineralogical world, the most common fluorine minerals are fluorite, CaF_2; cryolite, Na_3AlF_6; and fluorapatite, $Ca_5(PO_4)_3F$.

In 1670, Heinrich Schwanhard, a German glassworker, treated fluorite with a strong acid and observed wisps of vapor rising from the solution. As he bent down to examine the fluorite more closely, the vapor clouded his eyeglasses. Assuming the vapor had condensed on his glasses, Schwanhard took them off to wipe them clear. He found, however, that the vapor had actually attacked the glass lenses, etching their surfaces. This was quite remarkable because very few chemicals will react with glass.

By reacting fluorite with strong acids, Schwanhard was thus the first to generate hydrofluoric acid (HF). He kept this process proprietary and used it to create a successful glass-etching business.

Eventually, word of the process got out, and scientists realized that hydrofluoric acid contained a new ele-

(Continued on page 7)

(Continued from page 6)

ment. Carl Wilhelm Scheele (scheelite) and other scientists such as Joseph Louis Gay-Lussac (gaylussite), Caroline Menard, Humphry Davy, Antoine Lavoisier, and Louis Thenard (thenardite) experimented with hydrofluoric acid. They, and others, failed to isolate elemental fluorine. Henri Moissan (moissanite) finally succeeded in isolating fluorine in 1886 by electrolysis of HF and potassium hydrogen fluoride, an accomplishment that earned him the 1906 Nobel Prize for chemistry.

(via Rocky Trails, 12/13)

Mineral Etymologies

Etymology is the study of word origins. From where do some common minerals' names come? As one might suspect, fluorspar, fluorine, and fluorescence have common roots.

Fluorspar: The mineral fluorite is isometric calcium fluoride, CaF2. The older name *fluorspar* (synonymous with fluorite) is still widely used, especially in the mining industry. In 1546, Georgius Agricola translated the German term *flusse*, deriving the name fluorspar. The term *fluor* has its roots in the Latin term for "flowing" and is the result of the use of the mineral in metallurgy as a flux (it lowers the temperature necessary to melt a mix, thus allowing one to get a melt or flowing state more readily).

Fluorine: Fluorine was coined in 1813 by the English chemist Sir Humphry Davy (inventor of the Davy mine safety lamp) who derived the term from fluorspar. Davy realized that fluorine was one of the elements that composed fluorspar.

Fluorescence: In 1852, Sir George Stokes, an English physicist, observed the reaction of fluorspar to ultraviolet light and coined the term "fluorescence" to name the effect. He modeled the word on the term "opalescence" combining *-escence* with *fluor* from fluorspar.

Luminescence: Luminescence has its origin in the Latin *lumen*, which along with the Latin *lux* means light. The ending *-escence* meaning "state of" is derived from *–escentem*, a Latin present participle verb ending. Luminescence first appeared in print about 1896.

Phosphorescence: Phosphorescence has Greek roots. The term comes from *phos* meaning "light" and *phoros* meaning "bearer" (from *pherein* "to carry"). Thus a phosphor is a "light-bearer" and the *-escence* ending of phosphorescence is the same as in the word luminescence.

– A. A. Sicree

(via Rocky Trails 12/13)

The Color Purple

by Andrew A. Sicree

Fluorite occurs in a rainbow of colors, but purple is, perhaps, its most characteristic color. We've all seen beautiful, deep-purple fluorite cubes from the Cave-In-Rock District, in Hardin County, Illinois. What causes this color?

Analyses of natural purple fluorites have shown no consistently present trace element impurities that can explain the purple color. In fact, if you take a clear, colorless lab-grown fluorite crystal of the highest purity and irradiate it (i.e., bombard it with atomic radiation), you can induce the same purple coloration.

Purple coloration in fluorite is often attributed to "F centers" and indeed this is correct. But in the term "F center" the "F" simply stands for *Farbe*, the German word for color. Saying that the color is due to a color center provides only very limited information.

The fluorite crystal is a regular cubic lattice of positive calcium cations (Ca2+), and negative fluoride anions (F-). However, in even the most perfect crys-

(Continued on page 8)

(Continued from page 7)

tal, there are defects, typically at the 0.01% level. Some of these defects occur when a fluoride anion is displaced; instead of being in its proper position, the ion is caught in an interstitial site. This leaves an empty site where the fluoride anion should have been. If an electron becomes trapped in this vacant site, it creates what is called an *electron color center*. This gives the otherwise colorless fluorite the ability to absorb light in the green-red portion of the spectrum and the crystal appears purple.

Energetic radiation (such as from a nuclear reactor or from the decay of uranium or potassium-40 in nature) bumps electrons into the fluorite crystal's vacancies and thus turns a colorless crystal purple. It only takes about a hundred F centers for every million fluoride ions to create a deep purple fluorite specimen. No trace impurities are needed. One should also note that it is possible to reverse this process. If you heat a purple fluorite sufficiently, you can change it back to its colorless state.

Ref: Nassau, Kurt, *The Physics and Chemistry of Color*, (Wiley, New York, 1983) pp. 184-190.

(via Rocky Trails 12/13)

How To Tell Your Adit From A Hole In The Ground

by Walt Margerum, MSSC member

If you are like me, you come across mining terms all the time and sometimes you wonder what they mean. I have therefore compiled a short list of terms with their meanings to assist and edify everyone.

1. ***Adit*** — An almost horizontal tunnel from the surface to where you hope the ore is. Sometimes the adit is dug primarily for haulage of the ore from the vein to the outside so that it can be more easily put in the dump. In this case it is called a haulage adit

2. ***Decline*** — A tunnel dug at too steep an angle to easily walk. When you are at the bottom it is called a X%A&$ incline.

3. ***Drift*** — A horizontal or nearly horizontal tunnel that usually does not intersect the surface, but hopefully follows the ore. If it intersects the vein it is called a cross drift. It if passes through the vein it is called a X%A&$ drift.

4. ***Dump*** — The large pile of useless rock you spent many hours removing from the mine to get at the ore. Quite often everything from the mine.

5. ***Foot Wall*** — The lower wall of a vein. The one you try to stand on that is usually steep enough so that you slide down it to the vein.

6. ***Head Wall*** — The upper wall of a vein. The one you bang your head on.

7. ***Mine*** — A usually valueless hole in the ground into which otherwise intelligent individuals are willing to dump all their money.

8. ***Ore*** — The material removed from the mine that is sold in a vein attempt to make a profit.

9. ***Raise*** — A vertical or almost vertical shaft dug after you discover the vein is above the location of your tunnel.

10. ***Shaft*** — A vertical or almost vertical hole dug from the surface either along the vein or to where you hope the vein can be found. It is used to extract the ore until you decide it is easier to dig an adit for that purpose. This decision is usually made long after common sense dictates that is how you should have done it in the first place.

11. ***Stope*** — A large hole dug to extract ore. If the ore falls on your head as you remove it, it is called an overhead stope. If you have to bend over to dig the ore, it is called a backache.

12. ***Tunnel*** — A drift or adit. The term is usually used when you get lost and do not either intersect the surface or the ore.

13. ***Vein*** — The body of rock that contains mostly gangue, and a small amount of ore.

14. ***Winze*** — A hole dug to intersect the ore after you discover the vein is below the level of your tunnel.

I hope that you find these definitions useful.

(via Tumbler, 12/13; via The Pegmatite, 12/05; via MOROKS, 8/05; via Bulletin of the Mineralogical Society of Southern California, 7/05)

Shop Tips

Editor's Note: Shop tips featured in this bulletin have not been evaluated for safety or reliability. Please use caution and common sense when trying out any new idea.

(Continued on page 9)

(Continued from page 8)

Removing Rust

To remove rust from household or collecting tools, make a paste using two tablespoons of salt and one tablespoon of lemon juice. Apply the past to the rust with a dry cloth and rub.

(via Snoopy Gems, 5/11; via Breccia, 1/98; via Morton Salt, 3/96)

Polishing Curved Surfaces On A Carving –
by Ruby Appleby

Here is a way to polish curved surfaces on a carving with a flex shaft tool. Visit your local auto supply store and purchase a real leather chamois, or use any reasonably thin, clean, uncontaminated leather you have around. Select a felt, rubber or resin tip on a mandrel, lay the tip on the leather, cut enough leather to cover the tip plus up the shank of the mandrel about 1/2 inch. Wrap the leather about the tip tightly, gathering the overlap uniformly at the shank. Secure the leather with a tie. I use a rubber band, pulling and looping it over the tip repeatedly until tight. Trim off the excess leather past the secured point on the shank.

You now have a leather "micro" polisher. Dip the tip in water to get it wet, then dip in optical-grade cerium oxide or whatever polish you prefer. Use the tool at low speed and polish as you would on the "big buff", i.e. keep the tool damp and charged.

For safety purposes, always wear safety glasses. Make sure the leather is securely fastened at the shank by checking to see if you can pull if off in between charges of polish. Check to make sure you aren't burning through the leather.

(via The Tumbler 6/13; via The Pegmatite, 12/08; via Rockhound Rambling, 11-12/08; via Rockhound Rumblings)

In the Camera's Eye –

If you wish to take a picture of a slab, cab, or stone (but not a crystal or gem), photograph it under water. Unpolished stones will have their colors enhanced. Polished stones will not give off undesirable reflections and highlights.
(Expanded by Celia Tiffany, Show Me Geode editor),

(via The Tumbler 6/13; via The Show Me Geode, 9/02; via Rock Rollers, 1/95; via The Burro Express, 12/94; via Blue Agate News, 12/94)

Hot Tips On Thundereggs –

Many Lapidaries now heat nodule and thunderegg halves under a heat lamp for a few minutes before polishing with tin oxide or cerium oxide on felt. The polish comes up almost instantly. Alternatives include putting specimens in a 200 degree oven until warm to the touch, or putting them in a kettle full of hot water until they are warm. Dry off excess water before polishing.

(via The Tumbler 6/13; via Rock Rollers, 11/10; via Rock Licker, 8/08; via Rockhound Ramblings, 6/07)

Polishing –

Using elk or moose hide instead of felt will allow you to use more pressure with less friction thus preventing the stone from getting too hot in the polishing stage.

(via The Tumbler 6/13; via Roc Toc, 7/10; via Gem Cutters News, 2/09)

Polishing Dark Stones –

Have you polished a fine dark cab only to find white specks of oxide in the cab after spending a lot of time on it? Dark materials such as black agate, petrified wood and dark jasper can be cleaned by using black jewelers rouge and muslin buff. The buff will remove most of the white compound and the rough will render it invisible.

(via The Tumbler 12/13; via The Pegmatite, 10/10; via The Rockhounder, 4/10; via The Glacial Drifter)

Polishing Silver & Stones –

To polish stones and silver together, as in channel work, use cerium oxide. Other polishes may scratch the silver.

(via The Tumbler 12/13; via The Pegmatite, 12/08; via Owyhee Gem, 12/99; via Rock Rollers, 1/90)

Mind Your Manners – by John Mastin

Be mannerly and Perlite. Look Gneiss. To eat Pyrite, use a fork. Don't let your Apatite for things that come in Quartz show. Don't try to be as Tufa or as hard as Flint. If you must be a Wulfenite, go find yourself a Ruby — don't Gypsum poor fellow out of his Opal. Willemite, but Jasper never would. Schist remember this, keep swimming or you'll Zinc.

(via The Tumbler 6/13; via The Pegmatite, 3/09; via Rockhound Gazette 10/08; via Chaparral Chatter, 3/84)

2014 Field Trips (Tentative)

Feb 15 Marysville Rock & Gem Club Field Trip – Cedar Ponds – 9:00 am @ Monroe Jack in the Box – Jasper – tools: Dig and light hard rock tools - contact Ed Lehman wsmced@hotmail.com 425-334-6282 or 425-760-2786

Mar 15 Marysville Rock & Gem Club Field Trip – Cherry Creek – 9:00 am @ Duvall Safeway – Jasper – tools: Dig, light hard rock tools and wading - contact Ed Lehman wsmced@hotmail.com 425-334-6282 or 425-760-2786

See WSMC http://www.mineralcouncil.org/FieldTrips_2014.pdf for additional field trips and details

2014 Shows

Feb 8	9am-5pm	**Whidbey Island Gem Club – Annual Show**
Feb 9	9am-4pm	Oak Harbor Senior Center, 51 SE Jerome St, Oak Harbor, WA
Feb 14	9:30am-5:30pm	**Oregon Agate and Mineral Society – Annual Show**
Feb 15	9:30am-5:30pm	OMSI, 1945 SE Water Ave., Portland, OR
Feb 16	9:30am-5:30pm	
Mar 1	10am-6pm	**East King Co. Rock Club – Annual Show**
Mar 2	10am-5pm	Pickering Barn, 1730 10th Ave NW, Issaquah, WA
Mar 7	10am-6pm	**Tualatin Valley Rock and Gem Club – Annual Show**
Mar 8	10am-5pm	Washington Co. FairPlex, 873 NE 34th Ave, Hillsboro, OR
Mar 9	10am-5pm	

See the **Northwest Newsletter** for additional show listings and times.
Available online at: **http://www.amfed.org/nfms/documents/NorthwestNewsletter/NW07_0813.PDF**

How Can You Help

Your Federation: Save stamps and give to our club treasurer.
Your Hobby: Join ALAA. - Contact Lyle Vogelpohl
Other: Volunteer to teach beginners what you are good at.

To Learn More About …

Cabbing … contact Lyle Vogelpohl … (206) 932-3292