

***In the darkness of this season, we wish you the wonder of Light  
within the macrocosm of stars and the microcosm of snowflakes!***

As we close out this year that commemorated Milt's 13.7 billion and 70 years of Universe time, 4.56 billion and 70 years of Earth time, we share with you a time line we co-created:

Using your own body to measure our planet's story, your feet planted on the ground mark the beginnings of earth at the birth of our solar system 4.56 billion years ago (bya), the first living cell appears at your ankle (3.8 bya), the common ancestor of all life emerges at calf level (3.5 bya), multiple cellular life (eukaryotes) emerges at your knee (3 bya), exchange of DNA (sexual reproduction) comes into being at hip level (2 bya), plants and oxygen come about at shoulder height (1 bya).

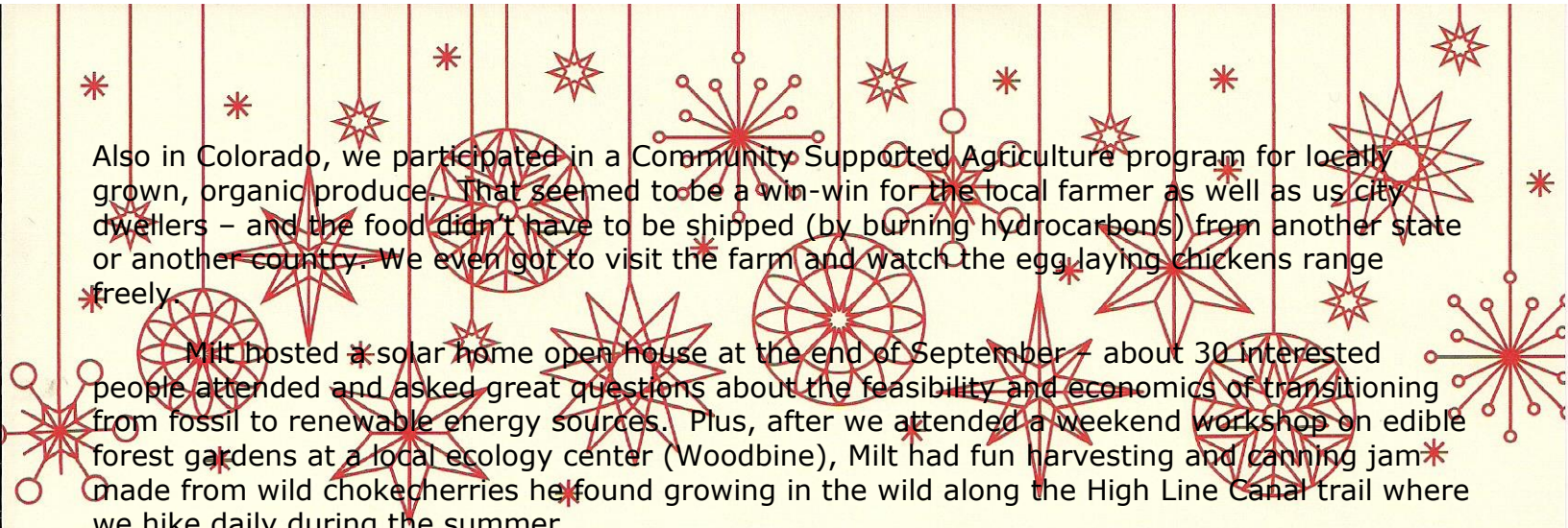
By raising up your arms to the sky, the largest explosion of plant and animal life occurs at your elbow (500 mya), dinosaurs come and go just a few inches below your wrist (70 mya). At your wrist bone, early humans appear (2 mya). In the span of Time within a single wrinkle line at your wrist, modern humans walked out of Africa and landed on the Moon (50,000 years ago to 1969).

The distance between the bottom of your palm to the top of your finger tips represents the next 500 million years – the time it is currently believed that the Earth will remain a habitable planet for life as we know it. Yet because of how we 7 billion humans are now changing our planet, its quality of life for even the next decade is literally in human hands today – this is our legacy.

For example, Climate Change became acutely real to us this past summer in Denver when we were choking on the smoke from unprecedented drought-fueled wildfires in Colorado Springs and Fort Collins. Yes, we understand that weather must be averaged over 20-30 years before we can say that climate has actually changed. But when locals say, "The last time we had weather like this was never," it has to make you wonder.

Thus we continue to increase our personal efforts to stop dumping CO<sub>2</sub> into the atmosphere (i.e. to reduce our carbon footprint). Last year, while in Colorado, we stopped burning coal and natural gas for our electrical power, summer air conditioning, winter heating and instead derived all our energy from the Sun. This year we decided to change our mode of local transportation around town so that we no longer burn gasoline and instead use the Sun as our energy source. It was quite simple; just acquire a plug-in hybrid car (Chevy Volt). We call it Emerson, because, like the renowned Transcendentalist, its electric motor is quietly subversive on behalf of our beautiful planet.





Also in Colorado, we participated in a Community Supported Agriculture program for locally grown, organic produce. That seemed to be a win-win for the local farmer as well as us city dwellers – and the food didn't have to be shipped (by burning hydrocarbons) from another state or another country. We even got to visit the farm and watch the egg laying chickens range freely.

Milt hosted a solar home open house at the end of September – about 30 interested people attended and asked great questions about the feasibility and economics of transitioning from fossil to renewable energy sources. Plus, after we attended a weekend workshop on edible forest gardens at a local ecology center (Woodbine), Milt had fun harvesting and canning jam made from wild chokecherries he found growing in the wild along the High Line Canal trail where we hike daily during the summer.

In Nevada, we joined with Occupy Las Vegas, the local Sierra Club Chapter, and Earth Justice in support of the Moapa Paiutes' efforts to shut down the coal burning power plant that has been blowing toxic coal ash over their reservation for fifty years, poisoning the 250 people living less than a mile downwind. We visited the Paiute Reservation and found the local red desert soil was indeed covered with a thin layer of gray ash. Now when we flip on a light switch here in Las Vegas, we are mindful of what then happens 60 miles to the north...and we continue to petition and picket NV Energy to clean up (or decommission) their coal burning plants.

To their credit, the Paiute tribe has decided to be proactive – they just received the needed permits to construct a utility size solar photovoltaic plant on their land. While Nevada Energy isn't interested in contracting to buy their power (NV Energy coal-fired plants still have a few years of economic life left and profit too often trumps people), at least southern California definitely IS. Relocation of the endangered desert tortoises will begin when they come out of hibernation in the spring, so that actual construction of this renewable energy plant can start next summer.

We find it inspiring that, while our Native peoples have been physically confined to reservations, they are not as mentally trapped as we are by the rhetoric of the coal, oil, gas and nuclear energy for-profit corporations. They enjoy the freedom of looking for alternative ways to live on Mother Earth, ways that are good for the land, good for the people, good for all life.

Meanwhile, in the face of a growing list of broken records from recent weather extremes, and knowing the physics of how green houses gases affect the heat balance of our planet, and knowing that we 7 billion humans together dump 27 billion tons of CO<sub>2</sub> into our common atmosphere each year (by burning hydrocarbons to make electrical power, heat our homes, run our cars, trucks and tractors, etc.), it's no longer possible to deny what we are doing to our planet.

So in this season of joy and peace and hope, we'll be increasing our commitment to star stuff that has become snowflakes, and to all the 'relations' that graced our lives this past year: coyotes and columbine, dolphins and doves, ducklings and mule deer, desert tortoises and sea turtles, barrel cacti and wild burros, scorpions and squirrels, aspen and apples, pelicans and people, American crocodiles and alligators, muskrats and mesquite, crinoids and cottonwood, plus prickly pear, loons, heron, rabbits, quail, brachiopods, the Colorado River and, of course, our family and friends.....especially YOU!

***May your New Year be wonderful: full of wonder and wondering!***

***Gail & Milt***