



**Empowering Resilient
Local-Reliance
for Economic
and Energy Decline**

15504 Lone Bobcat Way
Nevada City, California 95959
530.265.4244
www.peakmoment.tv
info@peakmoment.tv

Peak Moment Conversations

Peak Moment: Community Responses for a Changing Energy Future is a television series showcasing perspectives and initiatives for resilient local self-reliant living. Viewers meet like-minded individuals showing their grassroots activities to adapt to the new economic conditions, and to increase household, neighborhood and community security while laying the groundwork for a sustainable society.

Some topics include: local food production; renewable energy; transportation alternatives; sustainable building; preparedness; psychological, business, and governmental responses. Programs are on the internet at www.peakmoment.tv/conversations, and are cablecast on community access TV stations nationwide. The program is produced by Janaia Donaldson and directed by Robyn Mallgren of Yuba Gals Independent Media.

Programs are available with four consecutive programs per DVD (1-4, 5-8 etc.) for \$20 plus postage in North America. Annual subscriptions are \$200 plus shipping; choose from past and/or future programs. We are actively seeking to put the series on additional community-access TV stations.

Program Descriptions

1 Conserving Farmland. Increasing local food production requires preserving agricultural land rather than developing it. Conservation easements on Bill and Anna Trabucco's ranch preserves agricultural land now supporting a grass-fed cattle operation.

2 Learning from Hurricane Katrina. Three locals helping in the cleanup see firsthand the immense scope of the devastation, and affirm that locals need to be prepared for emergencies rather than depending on the government.

3 Saving Energy Dollars. Solar installer Martin Webb advises to conserve for the easiest, cheapest savings. Then he demonstrates how to analyze your California utility bill to determine whether or not investing in renewable energy makes financial sense for you. His Petroleum Food-Print shows how to conserve on food energy costs.

4 Community Energy Projects. What can communities do collectively? Martin Webb and Marston Schultz discuss local energy inventories, energy coops, opting out of PG&E service, influencing local government to set renewable energy policy goals, and vulnerability to shortages.

5 Personal Responses to Peak Oil. Mary Nelson reflects on community, neighborliness, attitudes, and opportunities in an energy-diminished future.

6 Self-sufficient Small Farms. Small acreages can produce a lot! Janet Brisson shows the home-canned and -dried vegetables, fruit, and beans she cultivates along with chickens and bees. Renee Wade talks about practices that suit the land: her drier property is better suited to raising goats.

7 Grass-fed Cattle Ranching. Nevada County ranchers David & Barbara Gallino raise their cattle in the traditional way on natural pasture grasses — healthier for the animals, their land, and the consumer. One of their challenges is transporting animals long distances to winter pasture and for processing.

8 The Future of Fruit. Chris Bierwagen's family farm has produced organic fruit since the early 1900s. Their challenges include weather, cost of labor, and marketing fresh fruit, including competition from cheap fruit products of other countries. Message: Buy from local farmers—that's where food comes from, not grocery stores!

9 Growing Grower's Markets. Organic farmers John Drew and Mary Walker explores the power of growers markets where local growers sell to local consumers—less fuel, fresher goods. Don't miss Mary's original song live in the studio!

10 Waking Up to Peak Oil. After sisters Loretta and Karen O'Brien learned of Peak Oil, their lives became transformed as they worked to gather their family, learn permaculture, move towards more self-sufficiency, and deal with emotional challenges.

11 Womens' Response to Peak Oil. Loretta and Karen O'Brien explores womens' emotional responses; concerns for children, family and health; nurturing activities like food-growing and building social networks in community.

12 Sustaining Food, Sustainable Food. Shan Kendall discusses nutrition-dense foods that nourished traditional peoples. Usually high in quality animal fats, with fermented foods to aid digestion, these foods fostered low levels of chronic disease.

13 Peak Oil: Challenge and Opportunity. Rick Hartmann covers the data about global oil production and consumption, while Michael Thompson envisions a healthier, better world on the other side of the peak.

14 Building a Relocalization Network. Celine Rich and Julian Darley, co-directors of Post Carbon Institute, discuss their rapidly-growing Relocalization network supporting small groups worldwide to reduce consumption and produce locally.

15 Climate Change and the State of the World. Worldwatch Institute Director of Research Gary Gardner discusses challenges and opportunities as climate change accelerates, and hopeful responses from the grass roots level.

16 Climate Change Effects in the Sierra Nevada. US Forest Service specialist Carol Kennedy's graphs show already-reduced snow pack, longer summers, drier forests. She emphasizes the need to plan for and adapt to changing conditions.

17 The Joy of Biking. Members of Nevada County's Alliance for People-Powered Transportation discuss biking as a viable alternative to cars; safety, time-saving perspectives, strategies for getting started, and being equipped.

18 The Powerdown Project. Students in New College of California's Powerdown Project are preparing templates usable by cities to assess how their core services will be affected by rising fossil-fuel prices and shortages.

19 Sebastopol: A Town Addresses Energy Decline. City councilman Larry Robinson discusses how rising energy prices and availability might affect services like fire, water, wastewater, law enforcement—and the citizen's advisory group starting to address these issues.

20 Citizens Advisory Group on Energy. Matt Stevens chairs the group formed to assess Sebastopol's electricity use and its ability to respond to price increases and supply disruptions, and to make recommendations to reduce the city's vulnerability.

21 Living within the Natural Economy. Brian Weller of Willits Economic Localization (WELL) discusses their community's process of building a secure, sustainable future based on RISC: Responsibility, Ingenuity, Security and Community. "When we depend on where we live for our livelihood, then we take care of it."

22 America's First Rural 'Green' Hospital. Margie Handley illuminates innovative plans for the new Willits hospital, including LEED certification for resource-saving energy and materials, an organic garden to grow food for the hospital, a wellness center, and telemedicine.

23 Forging Common Ground on Energy. Vice-Mayor Ron Orenstein worked with citizens to inventory Willits energy usage, including reduction strategies. Their work led to a unanimous council vote to install photovoltaics on city hall and more.

24 A Rural County at the Crossroads. Mendocino supervisor Hal Wagenet scans from this rural county's timber-extraction past to the challenges of a larger retired population's high service needs. Amongst critical "Land Use" issues he adds an idea for mixed-used-building in a walkable Willits.

25 MagneGas: From Sewage to Fuel Tank. Watch Ron Cole demonstrate converting any liquid to a gas similar to natural gas—and then drive off in the compressed-gas vehicle so fueled! He envisions its use in sewage treatment and neighborhood 'gas production' units that could plug into the natural gas grid.

26 101 Solutions to Global Climate Change. Author Guy Dauncey's lively, optimistic solutions for Peak Oil and climate crisis are do-able here and now. Conservation, efficiency, proven technologies, and emerging innovations will take us through this critical planetary energy transition. Full-length presentation DVD.

27 Learning from Cuba's Response to Peak Oil. Megan Quinn of Community Solution discusses her visit to Cuba, a model for powerdown. This young woman sees Peak Oil as an opportunity to create the communities we want, but notes that we must reduce our consumption despite environmentalists' assurances that biofuels will save us.

28 Exploring the Terrain of Peak Oil. Michael Ruppert, publisher of From the Wilderness.com, has made connections between money, Peak Oil, and geopolitics for years. He discusses his move to Ashland and offers specific to-do's around money and investment "in light of the imminent collapse of the U.S. economy": invest locally.

29 An Island Eyes Energy Independence. Rita Schenk and Deirdre Grace advocate forming a Vashon Island public utility district to produce electricity locally from renewable resources, starting with an aggressive voluntary conservation program to improve building efficiencies. Check out the Institute for Environmental Research and Education's 10-year plan for community energy independence.

30 Cooperative Living, Cooperative Driving. Long involved with intentional communities, Tree Bressen discusses a shared-ownership cooperative household with ten residents, as well as a small, one-car car sharing cooperative. Carshare info and scheduling software available free online.

31 The Portland Peak Oil Task Force. Propelled by passage of the Portland Peak Oil Resolution in May 2006, a citizen's task force is developing recommendations for the city. With Brendan Finn, chief of staff to Commissioner of Public Affairs, and task force member Randy White.

32 The RE Store: a second life for building materials. Tour a fascinating building supply store whose materials are donated or salvaged from demolition sites, and recycled at bargain prices to homeowners, contractors and businesses. With retail store manager Nate Moore, deconstruction manager Erin Marden and Executive Director Robyn duPre.

33 MOBY: An Inner City Community Garden Project. This Vancouver, B.C., neighborhood is building community while transforming an abandoned lot in a crack neighborhood into a flourishing community garden. Join MOBY-lizer Jason O'Brien and folks of all ages for cob clay-stomping fun accompanied by music in an inner-city urban garden beneath the elevated skytrain.

34 Vancouver's Co-operative Auto Network. A superb urban transport solution whose time has come. Founder Tracey Axelsson recounts the ins-and-outs of North America's oldest and largest car-sharing cooperative—membership, online scheduling, vehicle types, usage costs, preferred parking. Recorded August 10, 2006.

35 The Vancouver Food Policy Council Vancouver's food charter calls for a "just and sustainable food system." Council member Spring Gillard elaborates on city-wide collaborations to improve access to groceries, waste management, institutional food purchasing, and a goal of 2010 food-producing garden plots by 2010.

36 An Urban Developer Goes for the Green Inspired by the book *Natural Capital*, developer Joe Van Bellegham transforms a toxic site into a green development that's totally backed by the city and

community in Victoria, B.C. Conserves energy, water, heat, materials, and shares some with the neighbors.

37 Suburban Renewal - One Backyard at a Time. Jan Spencer shows his quarter-acre permaculture project transforming a typical suburban lot. Lawn and driveway were replaced with fruit and nut trees, vegetables, brambles, and native habitat, plus a 3500 gallon rainwater catchment system, a sunroom heating the house, and a small detached bungalow to increase residential density.

38 A Natural Builder Creates an Ecovillage. Tour an urban ecovillage on less than two acres only five minutes by bicycle from the center of Eugene, Oregon. Builder Robert Bolman uses natural materials like sensitively-harvested wood, earth and straw in the several beautiful, well-insulated, non-toxic structures surrounding the central shared gardens.

39 Permaculture for the Inner Landscape. Facilitator and musician Melanie Rios believes life can be much richer after peak oil—with lighter living that gives back time and joy. She facilitates communication skills to help groups "work together to stay together." In performances like her "Three Little Pigs Meet the Peak Oil Wolf," she erases the boundary between audience and performer.

40 Go Electric: Bike Commuting Made Easy. Catch Sally Lovell's enthusiasm for her electric-assist bicycle. Her comprehensive primer covers bicycle types, battery recharging, practices and products for security, inclement weather, and road safety. Gotta love that trailer for hauling stuff!

41 San Luis Obispo's Smart Energy Summit. How can localities buy and build local renewable energy generation capacity? Ken Smokoska describes the opportunities afforded by California's Community Choice law AB117. Nick Alter and Aeron Arlin Genet describe the coalition of business, environmental, university, county and city governments that took part in the summit, and where some of the outcomes can lead.

42 Yes! Building a Just, Sustainable, and Compassionate World. Yes! magazine counters mainstream media by giving us stories of people creating sustainable, just and positive futures. Executive Editor, Sarah Van Gelder discusses healthcare for all, alternatives to prisons, peak oil, living democracy, climate change, working together, and how each of us can begin creating change.

43 Bainbridge Graduate Institute - Changing Business for Good. How can business help create the world we want? Jill Bamburg, Dean of Bainbridge Graduate Institute's innovative MBA program, examines its basic premise: that doing good for people and the planet is good for business.

44 The Small-Mart Revolution. Author Michael Shuman advocates "Going Local," showing how local businesses are beating global competition and helping to create self-reliant communities. One innovative idea: invest locally by moving a portion of pension funds into regional stock exchanges.

45 "Who Am I?" in a Post-Petroleum World. Joanna Gabriel feels the challenge of Peak Oil is an opportunity "forcing us to create the kind of world we wanted all the time anyway." The coordinator for Post Carbon Ashland explores the challenge of creating a new paradigm of sustainability and sharing while we're living in the old industrial-era paradigm of limitless growth and domination.

46 Business Alliance for Local Living Economies. Executive Director Don Shaffer recounts BALLE's vision of local living economies ensuring that economic power resides locally, where it can enhance community life and natural systems—as a counter to economic globalization. BALLE's autonomous networks of local businesses initiate programs like "Buy Local First."

47 The San Francisco Peak Oil Resolution. San Francisco is the first American city to formally address the challenges of oil depletion. Dennis Brumm and Allyse Heartwell recount how members of SF Oil Awareness envisioned, wrote and presented to the San Francisco Board of Supervisors a Peak Oil resolution, which was passed unanimously in April 2006. They explore next steps: public hearings and plans to create a task force to assess the city's energy vulnerability.

48 A Defining Moment in Human History. The planet is rapidly confronting us with limits to the exploitative, dominator system of the past 5000 years. David Korten, author of *When Corporations Rule the World*, and more recently *The Great Turning: From Empire to Earth Community*, implores us to replace the old dominator-control stories with new stories — affirming life values of cooperation, community and interdependence.

49 Local Currencies: Replacing Scarcity with Trust. Francis Ayley established over a dozen local currencies in the UK before moving to the U.S. He contrasts our standard, scarcity- and debt-based money system with local currencies in which "there's always as much as you need." Local currencies like his Fourth Corner Exchange issue money when members trade goods and services. Communities with local currencies will be less affected when recession or depression hits the mainstream economy.

50 Land Trusts - Keeping Local Agriculture Alive. Land trusts are an important part of the voluntary protection of working agricultural lands,

which can also protect water quality, habitat, and beauty, not to mention food production expertise. Land trust veterans Cheryl Belcher and Dan Macon, himself a farmer, discuss the critical role of small scale food producers in the local economy and the challenges they face — from misperceptions of farming to policies favoring big agriculture.

51 An Experiment in Back Yard Sustainability. Tour Scott McGuire's "White Sage Gardens" in the back yard of his rental home — a demonstration site for suburban sustainability. He ponders, "How might a household produce and preserve a significant portion of its own food supply?" Composting, a water-conserving greenhouse, and seed-saving are all facets of this beautiful work in progress.

52 Return of the Electric Car. Otmar Ebenhoech has worked with electric vehicles for decades, watching as popular commercial EVs were developed, then recalled when their legal mandate was overturned. He sees improved battery technologies as the catalyst to enable widespread acceptance of EVs. Peek under the hood and watch a test drive of his hot electric Porsche race car conversion (0-60 in less than 5 seconds!).

53 Community Responses to Peak Oil. Peak oil educator and author Richard Heinberg discusses what communities can do to prepare for peak oil. He covers transportation, including a novel ride-sharing scheme, assessing municipal vulnerabilities, local food and energy production, as well as the Hirsch report's conclusion that 20 years will be needed to make an energy transition — very possibly more time than we have.

54 Sustainable Ballard: A Blueprint for EveryTown USA. David Wright, Vic Opperman and Andrea Faste are "making ripples around Puget Sound" by empowering folks in their northwest Seattle community of 70,000 around "the one issue that unites us" — energy. Sustainable Ballard volunteers educate, facilitate, and collaborate — working with businesses and organizations on projects like going carbon neutral, a "Vehicle to Grid" conference, and having fun, too!

55 It's the Compost! Creating Abundance at K-JO Farm. Karen Biondo and Joe Walling take us on a tour of their big-backyard farm on Vashon Island, Washington. Pet the goats, watch chickens dusting in divots, and crunch a purple carrot. Karen's colorful paintbrush and Joe's creativity with salvaged materials and hot compost combine to create plentiful harvests and playful beauty.

56 Fossil Free by '33. Tam Hunt outlines a strategy for regional independence from fossil fuels — and it centers around electricity. Start with efficiency & conservation, add renewables to replace fossil fuels for electricity, then add more renewables to electrify

transportation such as plug-in hybrid and electric vehicles. The result? A program "to save America's Environment and Economy one region at a time."

57 Conserve First! Saving Energy in the Home.

Todd Cory lives in a zero energy home. He started by conserving a whopping 70% of his energy use. Then he installed solar hot water and electricity connected to the grid. This renewable energy installer brims with enthusiastic ideas about having fun consuming less energy, starting with "the low hanging fruit" — what's easy and cheapest to do.

58 The Worm Guy. Watch a worm birth from a cocoon. See compost produced from food scraps, horse manure, and lots of worms. See the machine that separates castings (worm poop) from compost. The Worm Guy, Mark Yelken, says that worms are "the intestines of the Earth", fertilizing and activating microbial activity. Stick around to learn about the "Worm Wigwam" and "Worm Tea".

59 BriarPatch Co-op — Building for the New Century. Manager Paul Harton welcomes us to the newly-built BriarPatch Co-op Natural Foods Community Market. It's built to qualify for LEED™ certification (Leadership in Energy and Environmental Design) and incorporates innovative design throughout. Architect Jeff Gold shows state-of-the-art water and space heating, lighting and skylights, and a polished concrete floor with a "river" running through it.

60 The Elephant in the Peak Oil Living Room.

Richard Katz and Dennis Brumm burst the technofix dream-bubble by naming the hard stuff: the lack of sufficient alternatives to oil and gas at the enormous scale needed. Overpopulation exceeding the planet's carrying capacity. Potential collapse. But wait! they close with ideas for positive individual responses.

61 Sustainable Vashon - A Learning and Action Network.

Three women envisioning a sustainable island share their activities: Sustainable Vashon's Merrilee Runyan describes "Edible Island" and "Green Seed grants." Farmer Lisa Mathias of Vashon Island Growers Association envisions more neighborhood food production. Hillery Crocker coordinates the annual 3-day island Earth Fair celebrating local food, arts, wellness and community.

62 Brookside Farm - Growing Food, Growing Energy.

Take a whirlwind tour of the one-acre Brookside Energy Farm with Jason Bradford and Christoffer Hansen at planting time. Along with perennials, annuals, a food forest, and dryland crops (grains), they're growing Jerusalem artichoke and dale sorghum to produce both food and energy (ethanol). Watch Chris cut sod with a Swiss glaser hoe — a 1/6 horsepower guy!

63 Peak Oil, Peak Coal and Beyond. Hot topics from Richard Heinberg: record-high U.S. fuel prices; the ethanol big-business boondoggle; coal projected to peak about a hundred years early (around 2020); what the climate change discussion is missing; and enjoying ourselves as we "go local."

64 A Second Life for Garbage

When you go to the "dump" on Orcas Island, you get a bonus. Along with dropping off your recyclables and trash, you can leave your re-usables and pick up what you need at The Exchange. This thrift + building materials + appliance + home furnishings + sporting goods store has no set prices; you pay "what it's worth to you." Founder George Post recounts how The Exchange grew out of the scavenging of useful "stuff" that occurred all the time at the informal dump of days gone by.

65 Singing Minstrels - Teaching Kids About Climate Change

Enjoy toe-tapping tunes as environmental educators Sharon Abreu and Michael Hurwicz regale us with songs like "Penguins on Thin Ice." Their shared goal is for education to be fun and entertaining. Their catchy lyrics bid "Goodbye, Oil" and ask "How do we find the balance?" Their answer: "The economy depends on the ecology." Sing along!

66 Boulder County Going Local!

Michael Brownlee didn't stop after creating the Boulder Valley Relocalization group. He's catalyzing Boulder County's Going Local! campaign, encouraging residents to buy local first, eat and grow local food, create local energy and local currency. The community will celebrate at a "Renaissance of Local" festival, conference and expo with a feast prepared by the local Slow Food group.

67 Human Scale Tools for a Sustainable World

At Smith and Speed Mercantile on Orcas Island, hand tools line the walls and tables along with organic wool comforters and non-toxic paints. It's an extension of Errol Speed and Kathleen Smith's off-grid homestead where they work at "the speed of living," using hand tools that reconnect them to the earth.

68 Bullock Brothers Homestead - A 25-Year Permaculture Project

Take a tour with Joe, Doug and Sam Bullock on their Orcas Island property, site of a yearly Permaculture design course. Using nature as their model, they create edges and wildlife habitat, move water through the landscape, promote diversity, and raise an astonishing variety of plants from sub-arctic to tropical — a wise investment in these climate-changing times.

69 The Social Effects of Peak Oil

How will rising oil prices affect low- and middle-class lives? Sociologist and professor Rowan Wolf sees at-risk populations growing while government services and class divides are increasingly strained. A member of the Portland Peak Oil Task Force, she discusses relocalizing our economies, to counter globalization based on an unsupportable grow-or-die economic model.

70 The Inside Scoop from a Biodiesel Pioneer

Russ Teall has developed biodiesel production equipment since the industry was in its infancy. He discusses biodiesel's advantages over petroleum diesel, and the land-for-food vs. fuel issue. His projects involve small scale refineries using multiple oil feedstocks, decentralized production facilities, and oil-rich plants grown on marginal lands.

71 Restoring Native Landscapes - From a Dump to a Park

A closed landfill in Santa Barbara county is not just being restored with native plants. It also has a pilot project growing oil-rich jatropha for biodiesel. Restoration horticulturists Karen Flagg and Don Hartley of Growing Solutions do restoration education and remediate damaged landscapes — bringing them back to life.

72 "What a Way to Go" - Meet the Filmmakers

Tim Bennett and Sally Erickson discuss the influences behind this heartfelt and riveting documentary on "Life at the End of Empire." Framed in Tim's personal story of awakening to the big global issues threatening everyone's survival. It will touch you and make you think.

73 Post Carbon Cities - Planning for Energy and Climate Uncertainty

Smart municipalities are planning and preparing for energy vulnerability and climate change. Daniel Lerch, manager of the Post Carbon Cities project, has prepared a guidebook including case studies of cities large and small planning how to maintain essential services in the face of energy and climate uncertainty.

74 San Francisco Takes Action on Climate Change

Cal Broomhead and Melissa Capria of the Energy & Climate Program discuss the rationale, aggressive plans, and activities for city-wide energy self-reliance and greenhouse gas reduction. Tools include energy efficiency in buildings, transit alternatives, alternative vehicle fuels, generating electricity with renewable energy, and solid waste reduction.

75 Sustainable Connections - Transforming a Community Through Local Business

Michelle Long shows us how a highly successful local independent business network has transformed Bellingham, Washington, while inspiring other communities. From an initial "Think Local First" program, they have expanded to business peer mentoring, and support for local food producers, sustainable buildings, and green energy. An astounding sixty percent of their community are not only aware of the "Think Local, Buy Local, Be Local" campaign but have changed their buying habits.

76 City Repair - Permaculture for Urban Spaces

What happens when citizens apply permaculture principles to a city grid? They create friendly places within the grid that invite people to come together. Mark Lakeman, co-founder of Portland, Oregon's City Repair Project describes these "creative intervention" projects as placemaking at its best. People learn to work together, build trust and have fun. The results, from painted intersections to cob benches and other organic structures, invite people "to inhabit the planet on our own terms" rather than the grid-locked culture imposed by the city.

77 Climate Change, Despair and Empowerment — A Roadshow from "Down Under"

After summarizing the facts of deepening global climate chaos, Australian Kelly Tudhope notes that our psychological response is often overlooked. Feeling powerless, many people stay in denial. But if we acknowledge our feelings, we can find empowerment arising from our hopelessness. Kelly identifies "false solutions", which are forms of business-as-usual, in contrast to "true solutions", which ask us to change our behavior.

78 Alcohol Can Be a Gas, Part I

The first automobile fuel was alcohol, which could be produced by most farms. Permaculturist David Blume discusses the history, production and properties of alcohol. He notes that plants are more efficient in producing sugars (used for alcohol) than oils (biodiesel). If corn were first fermented, its starch could be used for alcohol and the remainder fed to cattle — far more efficient for food, fuel and land use.

79 Alcohol Can Be a Gas, Part II

Permaculturist David Blume discusses alcohol's low emissions, and producing alcohol as a biological complex in which wastes become raw materials for other processes. He claims that with one year of the U.S. Defense budget, the entire world could be set up to produce alcohol and permanently replace oil for transportation. He discusses vehicle conversion, and how citizens can undertake alcohol fuel distribution.

80 Protecting Water in the Face of Climate Change

Water is a precious resource we can't live without—nor can the salmon. Pat Pearson educates Olympic Peninsula citizens with a "Water Matters" campaign and "Shore Stewards" program for shoreline residents. New homeowners receive a "Welcome to Your Watershed" packet, while volunteers build rainbarrels to catch roof rainwater for gardens.

81 A No-Nonsense Look at Climate Change and Petrocollapse

Former energy analyst Jan Lundberg opens by singing "Have A Global Warming Day" and closes with "Schoolmaster." In between is an unabashed look at climate distortion, peak oil, and declining ecosystems, all bringing a necessary collapse of our "pigging out" economy. He envisions a future with radically curtailed energy use, and people coming together groping for local solutions.

82 People-Centered Developments for Reduced-Energy Living

Developer Steven Ribeiro is re-creating traditional towns, that put "waste" resources to good use. A mixed-use three-story building augments power from its solar panels (which provide shade and collect rainwater) with a tugboat engine (running on local biodiesel), using engine heat to warm the building. Cars are secondary in a 68-acre village, whose dwellings of all sizes are walkable to retail, offices, schools, entertainment, and open space.

83 Practical Tools to Grow an Intentional Community

Communities Magazine editor Diana Leafe Christian concisely spells out what the successful 10% of intentional communities do: common vision and purpose, fair participatory decision-making, clear agreements in writing, good balance of right and left-brain knowledge, methods of staying accountable to agreements, criteria for new members, good communication and processing skills. She also discusses peak oil effects on the wider community.

84 Creating the Impossible - O.U.R. Ecovillage

O.U.R. stands for "One United Resource," expressing how interdependence and inclusion undergird this 25 acre demonstration sustainable community on Vancouver Island. This model ecovillage comprises natural buildings, a school, long- and short-term residences, extensive gardens, greenhouses, and even a bed & breakfast. Brandy Gallagher MacPherson describes how they created an entirely new zoning category by building relationships with regulatory agencies that go beyond "us versus them".

85 Energetic Students Empower Cal Poly

The future's environmental leaders are here now! Student leader Tylor Middlestadt recounts how

Empower Poly (San Luis Obispo, CA) is bringing students to the table—with staff, faculty, and local communities — to shape a greener future. Students successfully pushed for environmentally-friendly design for the nation's largest student housing project. Inspired by the UC Go Solar campaign, students formed Renew CSU to advocate renewable energy projects on campuses statewide.

86 A Cutting-Edge Architect's Eco-Friendly Home

As an organizer in the American Institute of Architects, Chris Stafford has long promoted sustainable design. As a natural builder, he worked with straw bale and clay in Greece and Saudi Arabia. For his Port Townsend home, he considered site, size, materials and energy. The 1500 sq. ft. home uses mostly non-toxic materials (and fewer of them), foam insulation, metal roofing, solar hot water for space heating, photovoltaics for electricity, and an innovative rainwater collector for landscape irrigation.

87 How Much Food Can I Grow Around My House?

In summer 2006 Judy Alexander embarked on an experiment to see how much food she could grow, and how many neighbors could benefit, from the garden around her house. Check out her homegrown rainwater collection and irrigation system — watering her 60+ edible crops. Meet the bees, the chickens and the worms. And catch her joy in producing so much food for so little effort.

88 Make Way For Bikes

City Councilor Scott Walker of Port Townsend, Washington is working to build a walkable, bikeable community where the car is not essential. As a result, the town has designated many undeveloped streets and "connectors" as non-motorized routes. He says, "Build safe, convenient facilities for walking and biking, and they sprout people." Watch Janaia test ride Scott's electric bike, which "flattens the town" as if there were no hills.

89 Affordable Homes Forever - Opal Community Land Trust

This land trust is creating permanently affordable homes amidst increasingly-expensive real estate on beautiful Orcas Island, Washington. Co-founder Michael Sky explains how they provide 99-year leases on the homes built on land trust property. Restrictions limiting the resale value allow owners to sell at a reasonable profit while keeping the homes affordable forever.

90 What Can One Person Do?

If you enjoyed Sally Lovell's over-the-top treatise on her electric bike (episode 40), she's back, telling us other ways one person can make a difference - from fresh water to humanure. Her focus on water includes

educating herself on where it comes from, effects of pollution and climate change, and conservation — pressurized toilets, choice of washing machine, and ways to use that not-so-hot water while it's getting hot. As for humanure, listen in and find out!

91 A Sustainability Renaissance Man

Earth needs humans to figure out our shared destiny, says Alan Seid, whose interest is both the outer and inner dimensions of sustainability. Outside there's ecology, social systems and economics (e.g., in Permaculture). Inside is the psychological dimension of personal and group values and intentions. How do we meet people where they are, engender respect, promote crucial information-sharing, and motivate change?

92 A Community Car Share Hits the Road

Lorraine Wilde's non-profit Community Car Share organization in Bellingham, Washington received startup help from many quarters. Established car-sharing organizations mentored her, individuals offered low-interest private loans, a state grant enabled them to purchase a hybrid, and the city provided a fixed parking place by the bus station. Learn how she did it, then set one up in your community!

93 Mendocino Renegade

Els Cooperrider is an energetic lady. She co-founded the Mendocino Organic Network, which began an organic peer-certification service for local growers. Their Mendocino Renegade label means products are "beyond organic" and local. She also led Mendocino to become the first U.S. county to be GMO-free — genetically-modified organisms cannot be grown there. Her restaurant is America's first certified organic brew pub, with mostly local ingredients.

94 Facilitating Economic Localization in Willits, California

Jason Bradford and Brian Weller, co-founders of Willits Economic Localization (WELL), discuss their group's approach to educating and enrolling their townsfolk about declining oil and the imperative to reduce dependencies on imported energy, food, and other goods. They view their group as a mid-WIFE: a Watchdog, Incubator, Facilitator and Educator. They're pioneering "rediscovering where we live—and it's exciting."

95 Economic Localization - A Community Rediscovering Itself

In this freewheeling conversation, Jason Bradford and Brian Weller, co-founders of Willits Economic Localization (WELL), discuss local food security, creating a farm at a nearby grade school, being rooted in community, urban / rural friction in wealth and land use, regional trading partners, reinventing local public transportation, and more.

Peak Moment Conversations

96 Reconnecting with Our Roots - Food for Body and Soul

Linda Buzzell-Saltzman and Larry Saltzman of Santa Barbara share a love for their garden in more ways than one. Larry is creating a lush food forest and teaches permaculture to promote local food security. Ecotherapist Linda helps people heal their relationship with nature, noting that many problems are rooted in this disconnection.

97 Toward New Models of Shared Leadership

Mediator Anne Oliver would have us move back to our wisdom and forward to new social forms that are inclusive, respect all voices, and share leadership. She uses "Appreciative Inquiry" where we tell each other our stories, and out of our successful experiences, find values that can lead us into the future.

98 Energy Independence - America's Road Not Taken

Energy researcher Glenn Rambach's charts show how America budgeted for energy independence following the OPEC embargo in 1973. Then the Reagan administration switched to having "the market" create research incentives, so federal funding declined severely. He says we've lost 30 years, are spending in the wrong places, and need to get back to serious research in energy development.

99 Hope Dances Eternal for This Media Maven

For over a decade, Bob Banner has brought documentary films to his region, and published a bimonthly tabloid HopeDance, "Radical solutions inspiring hope." Ahead of many, he brings "disturbing" information as well as solutions and positive visions. Bob discusses the massive failure of media, spiritual films, relocalization, peak oil, and myriad other topics.

100 Suburban Permaculture with Janet Barocco and Richard Heinberg

Tour Janet and Richard's quarter acre for an example of what's possible in suburbia. Their front yard of edible plants also provides habitat for birds and insects. The backyard radiates out from an herb and kitchen garden to vegetable beds and containers; 25 fruit and nut trees; and a restful Zen garden. Near a future pond is a "three sisters" spiral of corn, beans and squashes. Check out their rainwater catchment barrels system, solar ovens, grid-tied photovoltaics with backup batteries, a low-energy house, solar-heated garden room, and a comfortable "summer palace" of natural & salvaged materials.

101 Energy and Climate Initiatives in Santa Barbara

Santa Barbara is lowering carbon emissions starting with a greenhouse gas emissions study; adding solar panels to city buildings; requiring lower energy usage for new buildings; converting vehicles to biodiesel

and/or hybrids; giving free bus passes to downtown workers. City councilmember Das Williams urges citizens to push officials to make substantive (i.e., funded) changes to mitigate the effects of peak oil and climate change.

102 To Be of Use - Serving the Community

A vocal proponent of going local, Dave Smith co-founded the Briarpatch Cooperative Market, co-founded "Smith & Hawken" and now owns a book store he can walk to. His book *To Be Of Use: The Seven Seeds of Meaningful Work* honors "creative action heroes" who meet real needs rather than just desires. He suggests judging others not by their stated values but by their virtues — their character and actions.

103 Building An Ecologically Sensible Home

Wanting to live a "reasonable, comfortable life" in tune with nature, Ann and Gord Baird are building a "net zero energy" home on rural Vancouver Island. Their plans: a thick-walled cob house with passive solar heating. Wind and solar panels to provide electricity. Solar thermal hot water for domestic use and radiant heating. Composting toilets to enrich the earth for orchard, gardens and chickens. Rainwater catchment and a well for domestic and irrigation water.

104 A Green-Built, Solar-Powered, Biofuels Station

From an early start producing biodiesel from used cooking oil in his garage, Ian Hill was instrumental in creating a market for biofuels in the state of Oregon. Now Managing Partner of SeSequential Biofuels in Eugene, he has gone on to build the first retail biofuels station in the state — and it's not an ordinary fueling station: A solar panel canopy provides 50% of the needed electricity. The convenience store is a passive solar design to help with heating and cooling, and stocks as much locally produced food as possible. Its "living roof", of mostly native plants, helps cool the building in summer, and slow and filter stormwater runoff. This optimistic entrepreneur says he has found greater happiness in learning to consuming less.

105 For the Love of Trees

Though born and raised elsewhere, Jerry Becker is now a de facto indigenous member of Oregon's Elk River watershed. The credo he lives by is Respect. He and his family have lived lightly "long before it was cool." An ecoforester, Jerry manages the woods sensitively with an eye to its wholeness. For the past thirty years he has worked with Friends of Elk River to protect wilderness regions in the watershed. In the last decade he formed the Elk River Land Trust, working with private landowners to protect agricultural and forest lands from development. Ripples of his gentle respectfulness permeate an entire watershed.

106 Community Gardens Grow Communities

Patrick Marcus and other motivated citizens sprouted a community garden on city land slated to be a park in Ashland, Oregon. When the garden was threatened by plans to develop the park, they got active. Their research and advocacy led to official policy supporting community gardens in city parks. As the volunteer garden manager, Patrick affirms gardening isn't just for leisure — it helps build community. It creates bonds among people from diverse social spheres — through shared work, classes, potlucks and, most of all, shared passion.

107 Plug-In Hybrids Power the Grid

Professor Andy Frank, Director of the UC Davis Hybrid Vehicle Research Center, has a plan to power more than just our cars. In his vision, plug-in hybrid vehicles can be used as mobile batteries, contributing solar power to the grid, and helping to "load balance" the demand. Roofs built over our parking lots contain solar panels that charge the cars' batteries in daytime. At home, the same batteries can help power a house, or feed energy back to the grid. The result: fewer power plants.

108 Sustainable Bellingham - Grassroots Organizing is Key

Sustainable Bellingham has built a solid infrastructure to be as effective in their community as possible. Team members Sandy Hoelterhoff, Lynnette Allen and David Kowalsky discuss their decision-making tool QET (a Quick Effective Tool), as well as a natural-systems model to define roles for producing events. Called ACORN, it includes roles based on directions of the compass (e.g., physical logistics tasks are in the south, oversight in the north). With a mission of education and communication, they network people, projects and groups with similar interests. Among Sustainable Bellingham's activities are film showings and a Sustainable Transportation Fair.

109 Powering the Rain Shadow

Most of Washington State's San Juan Islands don't have grid electricity. Many people have relied on generators, but these days, an increasing number are turning to solar. Renewables installer Eric Youngren discusses how net metering works to pay individual energy producers for power they put back into the grid, and other incentives for small-scale renewable "power plants". He tells us about "run of the river" hydro, powered by diversions rather than dams in creeks. A strong advocate for conservation and efficiency, Eric says we could be running everything in the home on a fraction of the energy we now use, just with rooftop solar.

110 Advice to Parents and Teens - Preparing for Peak Oil

As a mom of two teenagers, Deborah Lindsay is deeply concerned about their future. As a peak oil educator,

she paints a vivid picture of a post-petroleum world, with an emphasis on preparedness. With teens she talks about career choices and practical life skills. With parents, she focuses on safety, economic and energy contraction, and steps to begin now. In 2006 she began the daily talk radio show "Tomorrow Matters - Giving a Voice to a Better Tomorrow" to amplify her message.

111 We Make the Path by Walking: White Oak Farm CSA

Amidst cob-wall plastering in the background, co-director Stacey Denton relays the story of the first years at White Oak Farm and Educational Center in Oregon: Acquiring the 62 acres of food and pasture and protecting it through conservation easements, creating their non-profit organization. See food baskets for their CSA (community supported agriculture) program, visit their abundant permaculture-based farm; attend a workshop in natural building; and delight with kids in an educational program "down on the farm."

112 Learning From the Collapse of Earlier Societies

According to Professor Guy Prouty, every civilization rises, evolves, and then collapses to a simpler structure — and this will include our own. Comparing America with the Western Roman Empire, Prouty notes the over-reach of our military, the unsustainability of capitalism, peak oil, and climate change. And, this time, we may see a global collapse. Transitioning to a simpler society will require us to change behavior and consciousness: decrease energy, get out of debt, decentralize, de-consume, grow our own food, build community, see ourselves as connected to the planet. Collapse is not the end, he says. It's part of a natural cycle.

113 "Team Fate" - Designing the Next Generation Hybrid

Students at UC Davis Hybrid Vehicle Research Center have been creating plug-in hybrids for national competitions for some time. "Team Fate" members Bryan Jungers and Patrick Kaufman describe how they "gut" the drive train of a standard vehicle, replacing it with an electric motor, a bank of batteries, continuously variable transmission, and some clever electronics. The resulting vehicle runs on electricity, assisted by a much smaller flex-fuel internal combustion engine only when needed. Bryan and Patrick also enlighten us on topics ranging from battery technology to hydrogen fuel cells.

114 "Team Fate": Under the Hood of a Next-Gen Plug-In Hybrid

Take a tour of a plug-in electric hybrid modification of a 1996 Mercury Sable, with UC Davis graduate students Patrick Kaufman and Bryan Jungers (interviewed in episode 113). Under the hood you'll see

modifications and some interesting new components. Unlike commercial hybrids — primarily combustion engines with an electric-motor assist — theirs is primarily an electric vehicle with a small combustion engine to extend its range beyond the all-electric 60-70 miles. Batteries recharge in 6-8 hours with electricity costing about 75 cents per gallon of gas equivalent (2006 prices). Don't miss Janaia's first-time drive of an electric vehicle.

115 Calm Before the Storm

Richard Heinberg, author of "Peak Everything", reviews the accelerating events since mid-2007, including the credit crunch and fossil fuel price volatility, noting that we've missed most of the best opportunities to manage collapse. He asks, "how far down the staircase of complexity will our global civilization have to go until we're sustainable?" His answer: when managed properly, with deliberate simplification, not as far as we might otherwise. In addition to long term efforts to relocalize our economies, he advocates developing community "resilience" to withstand short-term catastrophic events like food shortages or extreme weather. Noting that healthy fear can move us into action, he encourages an attitude of clarity, concern and informed action in this "calm before the storm" that he feels is soon coming to an end.

116 Looking at The Big Moral Question

"What's going to happen to our kids?" When Bruce Anderson read "The Limits to Growth" in the 1970s, he learned that nothing in nature grows forever — including the human economy. As we rapidly use everything up, we're now reaching those limits and entering a crisis of adaptation. He raises the moral, ethical and emotional aspects of a challenge humans have never faced before. He feels we're up against limitations of thought, of the heart, almost at a mythic level. He asks: Can we mature from our childish consumerist narcissism to compassionate adulthood? Will our inbuilt caring for our children propel us to quickly take action so they have a future? While facing what's before us, how can we keep our spirit and heart alive, not succumbing to denial or despair?

117 The Bicycling Horticulturalist

Ryan Nassichuk builds food gardens for people. His bicycle and trailer are the sole transport for himself, tools, and materials - including soil and plants! This horticulturalist also builds container gardens and composters. Tour a backyard garden in which a 6-week class of students filled raised beds with soil, compost and fertilizer, did succession planting, and built a low-cost composter. Recently Ryan has added free seed-sharing to his wisdom-sharing, while continuing to propagate food gardens throughout Vancouver. This man has a low ecological footprint — or should we say bike tire tread?

118 Protecting Your Money in a Declining Economy

Are we in the perfect financial storm? Marc Cuniberti, a market analyst and host of "Money Matters" on our local community radio station KVMR, thinks so. Marc talks about the cause of inflation (rising prices are just a symptom) and how you can stop it with a candy bar! He discusses strategies to protect and even make money in a weakening economy — like getting out of debt and investing in physical things you really need. In the stock market, he suggests dividend paying stocks, stressing the importance of using interest compounding in your favor: \$100 saved today with an 8% return will grow to \$200 in 9 years.

119 Little House on a Small Planet

Builder and author Shay Salomon finds that the happiest home builders are often the ones with the smallest houses. They're less costly to build and maintain, more likely to be finished, use fewer resources and help people simplify their lives. One version of "smaller" is to share a house, which can ease our loneliness while building our social network. Co-founder of the Small House Society, Shay notes that scaling down can enable a ratcheting up of our whole lifestyle, as we revalue quality over quantity. Declaring "Enough", she says, is the most ecological thing one can do.

120 Go-Getter Gets Governments Going on Sustainability

Energetic Kris Holstrom is the first Sustainability Coordinator for Telluride and a smart Colorado county. The action plan she developed encompasses energy efficiency and renewables, green building, food and water security, economy, and recycling/resource recovery. She enlightens us about green codes, incentives and rebates, a household energy audit program, public education speakers and conferences, even farm tours for schoolkids. For Kris, what's at the heart of sustainability is building relationships within the community and with the land, wherever we live.

121 Helping Local Food Businesses Thrive

Wendy Siporen coordinates The Rogue Initiative for a Vital Economy (THRIVE), which helps small locally-owned businesses not just to thrive, but be more sustainable as well. A "Food Connection" directory enables local businesses to buy from one another. Their "Rogue Flavor" campaign helps consumers find locally produced food at farm stands, restaurants, and markets. Tasty ideas from the one-week "Eat Local Challenge: cooking classes, films, and cooking a meal made from all-local products from the growers market. Yum!

122 An Inside Look at an Emergency Survival Kit

If an emergency forced you to evacuate your home, would you be prepared? Matt Stein, author of *When Technology Fails*, shows what to pack in your 72-hour emergency survival kit — and why. Check out the first aid kits, sleeping bag and space blanket, LED flashlight, hand-crank disaster radio, portable stove and cook set, freeze-dried food, multi-tool, compass, water holder, and essential water treatment items; plus sewing, repair, and health items. The packing list is on his website (www.whentechfails.com).

123 Cultivating a Suburban Foodshed

Landscape architect Owen Dell has a vision: transforming suburban neighborhoods into shared "foodsheds" with food-bearing and native plants, and even chickens. Neighbors can start by finding edible plants already growing in their yards, maybe remove fences, plant what works best in each location. Best of all, share the resulting food abundance with one another ("Hey, it's lemon time. Come and get 'em!") and build the social network with shared food potlucks. Tour Owen's own edible landscape yard, including a rooftop container garden complete with visiting cat.

124 Creating our Own Neighborhood — Bellingham Cohousing

Kathleen Nolan helped shaped the beginnings of Bellingham Cohousing, based on a neighborhood design of private homes and shared buildings, managed by residents in participatory decision making. Their 5.74 acre plot originally had one farmhouse, which they modified to become the shared community building with dining, kitchen, laundry, craft, office, guest, and other rooms. The individual townhouses make a small footprint, leaving open space for gardens and a natural wetland. She stresses the importance of agreeing on shared values, and how the social connections enhance and challenge personal growth.

125 An Engineer Examines a Town's Energy Future

How much energy does a town consume? Brian Corzilius sleuthed that out for Willits, California, and got a big surprise: in this community of 13,000 people, nearly 25% of after-tax revenue leaves town to pay for energy--gas, diesel, electricity and natural gas. His inventory grew into an energy independence report which identified opportunities for local fuels to replace the external inputs. His local "energy mix" considers solar, wind, hydro, biomass, wood gasifiers, co-generation, and sewage plant methane to create electricity. A model for any community, his energy report is online at www.greentransitions.org/Papers/Papers.htm.

126 A School Garden Brings Learning to Life

Come along on a tour with team-teachers Glenda Berliner and Jeralyn Wilson, as they show us their elementary school garden bearing many fruits. It's an important part of the curriculum: children make mason bee boxes, grow colonial medicinal plants, learn of other cultures, and put science to work. It builds community: parents work together, students form a bucket brigade to transport wood chips. It's a site for celebrations like a pumpkin harvest or a play. Whether it's the flower and vegetable beds, or the restful Zen garden, the garden is a favorite place to be, and to grow from.

127 Middle Class Lifeboat: Careers and Life Choices for Staying Afloat

Paul and Sarah Edwards are authors of a timely book "Middle-Class Lifeboat: Careers and Life Choices for Navigating a Changing Economy." In a world of decreasing resources, they ask, how do we financially support ourselves while moving towards sustainable lives? Emphasizing independent income sources, they consider dozens of possible careers from basic services to local-scale technologies. Life choices include lowering costs through simplifying, getting out of debt, and demonetizing (e.g., bartering). Or one can consider an "off-the-map" lifestyle like living abroad, off-grid, or an intentional community. This downturn is not just a cycle, they emphasize: it heralds a sea change.

128 Finding Opportunity in Peak Oil

Molly Brown sees Peak Oil as both a challenge and an invitation to create a better world. After awakening to Peak Oil, she explored her own responses — inner attitude and outer action. Personal changes include creating a veggie garden and bicycling. Noting that individual survivalist mentality is insufficient ("we are all interconnected"), she helped form a local group to awaken and prepare her community. As a therapist, Molly sees this predicament on several levels, noting how crises have the potential to bring out the better part of human beings.

129 Meeting the Energy Challenge

Richard Heinberg, author of *Powerdown*, makes plain the dire situation we're in as declining oil supplies fail to meet demand. He notes there are no easy "supply side" solutions (like substitute fuels): we must reduce demand, initially through conservation and efficiency. Julian Darley, president of Post Carbon Institute observes that while personal action is very important, individuals can only do so much. A deeper response must come at the municipal level — to change infrastructures on how we heat, transport, and power our society. Sharing, he notes, can bring enormous energy reductions almost immediately: after all, two people rather than one in a car cuts energy use per person in half. Bottom line: Americans love rising to a challenge. And this IS a challenge!

130 Oil and Gas — The Next Meltdown?

Drawing parallels with the current financial meltdown, Matthew Simmons, the CEO of Simmons & Company International, expresses his alarm about gasoline stocks being the lowest in several decades and refinery production down following recent hurricanes. He warns that if there were a run on the "energy bank" by everyone topping off their gasoline tanks, the U.S. would be out of fuel in three days, and grocery shelves largely emptied in a week. In an interview plus excerpts from his presentation at the Association for the Study of Peak Oil (ASPO-USA) conference on September 22, 2008, Matt highlights the risks and vulnerabilities in the finished oil products system, and answers audience questions.

131 Making Financial Sense of the Coming Energy Crisis

"We are living in historic times", says financial consultant Jim Puplava. As reflected in his weekly Financial Sense Newshour, actually several hour-long podcasts, Jim has been factoring peak oil into his financial picture for several years. In this interview plus excerpts from his presentation at the Association for the Study of Peak Oil (ASPO-USA) conference in September 2008, Jim talks about the "crisis window" opened by the current 2008 global credit crunch, and deepening over the next several years as oil supply begins its permanent decline. He provides some basic investment guidance for navigating the coming "perfect financial storm," noting that our society will move of necessity from consumption to conservation.

132 Peak Oil and Its Effect on Climate Change

The peak oil message is slow to gain acceptance, says energy analyst Randy Udall, because it's at odds with our optimistic It's-Morning-in-America mentality. Politicians "Don't Do Depletion." Randy describes challenges, mitigations, and exciting opportunities to create a prosperous path to a lower-energy future. In an excerpt from his presentation at the Association for the Study of Peak Oil (ASPO-USA) conference in September 2008, the co-founder of ASPO-USA points out cornucopian myths about energy that are being shattered by reality. His concern is that the peak oil crisis, while less known than the climate crisis, will impact us sooner, and is not being factored into climate policy decisions. Peak Oil may in fact help moderate the climate crisis.

133 Two Views of a Post-Oil Future

From the ASPO-USA 2008 conference: two long-standing peak oil awakens: author James Howard Kunstler (*The Long Emergency*) and Post Carbon Institute Founder and President, Julian Darley. Darley, founder of Post Carbon Institute, is big on sharing: Sharing ideas to quickly inform a public largely unaware of peak oil. Sharing cars as a quick way individuals can get fuel usage down. He notes the "Re" in Relocalization means positive actions we can

revive from the past to enable the powerdown transition.

Kunstler describes his recent novel *World Made by Hand*, a richly textured life in a post-oil agrarian community where electricity and phone are rarely working, and people must of necessity rely on each other. He compares America's current financial and political "fiesta of dishonesty" with the 1850s, which preceded the "last great U.S. convulsion."

134 Shocks, Shortages, and Scenarios - Planning for a Post-Oil Future

Responding to peak oil will require reshaping our communities. These two interviews, taped in September 2008 at the ASPO-USA conference, are with Megan Quinn Bachman of Community Solutions, and Bryn Davidson of Dynamic Cities Project.

Megan observes that while the ASPO-USA conference focuses on the energy depletion problem, what's needed are solutions and strategies for communities and people. Her town's anxious response to a recent power outage provided a lesson, as many people didn't know what to do, nor had they built a network of mutual support. We need community contingency plans for sharing and surviving with less energy.

Focusing on urban planning, Bryn Davidson uses scenarios to test strategies for an energy-constrained future, particularly for infrastructure like roads. He asks, how do we invest today that'll pay us back in multiple plausible futures -- from "business as usual" to long-term energy decline and shortages. He notes wryly that as a result of peak oil, we may have also reached "peak roads".

135 Broadening the Peak Oil Conversation

Senior energy analyst Robert Hirsch reflects on the immediate liquid fuels problem, and the rebuilding of our entire energy system which will take at least twenty years. He reflects on comments made during the ASPO-USA 2008 conference presentations, noting that he remains optimistic about American response to the daunting challenges ahead.

Political science professor Kyle Saunders is the "Professor Goose" behind the Oil Drum website. He champions the need to learn from one another about complex, interdependent topics like the economy and energy, noting that every piece of information we can get can reduce uncertainty.

In the question-and-answer session at the close of ASPO-USA's 2008 conference, presenters respond about the current financial chaos and resource scarcity, how to encourage intelligent political action, the need for a peak oil high-visibility champion, peak oil's relationship to climate change, and suggestions for household energy reduction.

136 Energy Investment, Energy Return

Independent financial consultant Jim Hansen runs every investment through the "peak oil test". In this presentation from the ASPO-USA 2008 conference, he explores traditional energy investments; opportunities in renewables, rail, and electrifying the transportation system; areas to avoid like airlines and trucking; and what to watch, like electric cars and the unwinding of globalization.

In this interview, ecologist and professor Charlie Hall looks at energy return on energy invested. Whether it's a cheetah chasing antelope, or humans making ethanol -- the energy we get back has to exceed the energy we put in, or the story is over. He compares oil's energy return in the 1930's (1 calorie invested returned 100 calories of energy) with the current situation (1:12) and still declining.

Presenters respond to the final question in the Q&A session at the close of ASPO-USA's 2008 conference: how do we better harness the intellect, energy and commitment at this conference, and what one thing would you have people ask an elected official to do about peak oil?

137 Peak Oil - Politics, Geopolitics, and Choke Points

These four presentations were taped at the ASPO-USA 2008 conference. Morey Wolfson shows a stunning Google Earth presentation of oil's planetary transportation Choke Points, primarily in the middle east. Jeff Vail discusses how our energy future is not controlled solely by what's possible economically, technologically and geologically but, equally importantly, geopolitically. He notes we will increasingly produce less because of geopolitical problems--as in Nigeria, Iraq, and elsewhere.

Editor Tom Whipple discusses two significant publications available free on the ASPO-USA.com website and through email subscription: daily Peak Oil News and the weekly Peak Oil Review. He describes how oil scarcity is already being felt in island nations and other less-developed countries.

Connecticut State Legislator Terry Backer provides sound advice on how to get a peak oil resolution through a legislative body: through someone experienced in getting legislation introduced, and by speaking the language of legislators. He succeeded in his state by framing peak oil within economic issues and government's responsibilities to the people of his state.

138 The Twilight of an Age

In his book, *The Long Descent*, John Michael Greer observes that our culture has two primary stories: "Infinite Progress" or "Catastrophe". On the contrary, he sees history as cyclic: civilizations rise and fall. Like others, ours is exhausting its resource base. Cheap energy is over. Decline is here, but the descent will be a long one. It's too late to maintain the status quo by swapping energy sources. How to deal with this predicament? He lays out practical ideas, possibilities, and potentials, including reconnecting with natural and human capacities pushed aside by industrial life.

139 The Transition Movement comes to America

One response to the global crisis that is gaining enthusiastic momentum is the Transition Towns movement. Jennifer Gray, a pioneer in the Transition Initiative in the UK and cofounder of Transition US, describes it as "a community-led response to the twin crises of peak oil and climate change. It's ... positive, pro-active [and] engages the whole community in building resilience into their world." Sharing highlights from *The Transition Handbook* by founder Rob Hopkins, she elaborates on a flexible twelve-step process to empower community organizers in unleashing the creative genius of their community and building an Energy Descent Action Plan. One innovative aspect is backcasting: envisioning one's community in 20 years, and then designing steps to get from here to there.

140 Transit on Demand (Have Cell Will Travel)

What if you could make a call at any time on your cell phone and have a vehicle come to you within minutes, take you to your local destination, and cost about as much as a bus ride? Allen Hancock's notion of demand-responsive transit fills the gap between the private automobile and public transit. Rather than fixed routes and schedules, smaller vehicles guided by intelligent software with gps (geographic positioning system), circulate to where riders are and want to go. Flexible, efficient, low-cost, it uses existing vehicles and roads. Where's the town that will implement this exciting pilot project?

141 Creating a Home Graywater System

Trathen Heckman takes us on a step-by-step tour of how to make a safe, ecological and legal suburban home graywater system. Follow the water as it drains from the bathroom tub (and sink and laundry) through a unique valve leading into the backyard garden. It flows into an optional wetland and underground pond for filtering. The water is then piped below ground to several destinations in the yard, where it will supply water for plants growing above it. Trathen discusses the process with local government agencies, the system design and construction (with pictures), costs, resource books, and why to undertake a graywater system in the first place.

142 Energy Co-op Brings Power to the People

What if a community owned its electric utility cooperatively, rather than paying a for-profit company? Plumas-Sierra Rural Electric Cooperative could be a model. Energy Services manager Jessica Nelson describes how this locally owned, democratically governed non-profit serves the good of the community. Besides lower rates, customers benefit from incentives to conserve electricity, install geothermal heating/cooling systems, and solar panels (photovoltaics). The coop's dream? To not only distribute power but to generate it -- through a wind turbine project.

143 Corporate Couple Become Permaculture Activists

Asking "wouldn't it be wonderful if our city could feed itself?" Joe Leitch ponders everybody in Portland planting a chestnut tree. Pam Leitch relates how they both left the corporate world after reading the book *Your Money or Your Life*. As educators on sustainability and resource depletion, permaculture and social justice, they soon learned of Peak Oil. Pam initiated bringing a Peak Oil resolution to the Portland City Council, who passed it unanimously in 2006 and set up a citizen task force to make recommendations for city action. See a bit of the permaculture farm Pam and Joe are creating in residential Portland, cultivating fruit trees, vegetables and compost, rainwater catchment, and innovative neighborhood cooperation. If every city were full of such projects, maybe they really could feed themselves!