

Presentation at the Old Oratory of the Monastery of Our Lady of the Annunciation of Clear Creek, to Catholic householders of the area, together with some of the priests and brothers of the monastery, Saturday, February 7, 2009.

A presentation like this demands a bit of poetry to start with – so here is some from Wendell Berry –

1991 part 2
by Wendell Berry.

The ewes crowd to the mangers;
Their bellies widen, sag;
Their udders tighten. Soon
The little voices cry
In morning cold. Soon now
The garden must be worked,
Laid off in rows, the seed
Of life to come brought down
Into the dark to rest,
Abide awhile alone,
And rise. Soon, soon again
The cropland must be plowed,
For the year's promise now
Answers the year's desire,
Its hunger and its hope.
This goes against the time
When food is bought, not grown.
O come into the market
With cash, and come to rest
In this economy
Where all we need is money
To be well stuffed and free
By sufferance of our Lord,
The Chairman of the Board.
Because there's thus no need
To plant one's ground with seed.
Under the season's sway,
Against the best advice,
In time of death and tears,
In slow snowfall of years,
Defiant and in hope,
We keep an older way
In light and breath to stay
This household on its slope

There will be a considerable amount of preaching to the choir in this presentation, and

that's good, because choir's need preaching. I am a choir director, and I preach to my choir all the time. If I did not do this, the choir would run the risk of forgetting why we do what we do. I tell them to sing with great devotion, so that souls will be saved.

Fr. Willis began the conference with a short reading from the Lord of the Rings. I would like to continue that theme by recalling one of my favorite vignettes from that tale. This is early in the quest, and Frodo is just coming to a realization of the enormity of the problem of the Ring, and his role in its resolution. He says to Gandalf, "I wish I did not live in such times." Gandalf replies, "So do I, but that is not for us to decide." And this is where we are today. No one asked to be born into the present situation. If I could snap my fingers and make it better, I assure you I would do so promptly. But rarely does snapping my fingers do anything. I snap my fingers at my choir all the time and they often just ignore me.

Anyway, Gandalf goes on to say. "All we have to do is decide what to do with the time we have."

That's what this conference is about.

I was asked to perhaps give some idea as to where I think that the present situation is going. That of course is an invitation fraught with peril. I have had, in some circles, something of a reputation as a "doom-sayer", although I actually prefer to think of this as "hope-bringing". And certainly, there is much that can be said about the doom of the present world situation, but frankly, the situation is running fast and far ahead of what I might be able to prognosticate. If I were to just give a litany of the amazing incidents of the past year, it would take all the time we have here now and then some. If the events of the past year were included in a science fiction book, its author would likely be criticized for wildly extrapolating.

Chesterton wrote, I agree with the realistic Irishman who said he preferred to prophesy after the event. That is a prudent course of action, so as I look back over the events of this past year, it seems to me that they are running past any ability to prognosticate. The list of "this will never happen" is long and getting longer all the time.

For many people right now, they have already met a punctuated equilibrium, a serious break in their normality. They have lost their houses, their jobs, their 401ks have become 200.5ks, and their lives aren't turning around soon. Here in Oklahoma, we are behind this curve considerably. One of the facts about Oklahoma's economy is that we are often counter-cyclical to the rest of the nation. When California and NYC boom, Oklahoma is in recession. Much of this has to do with oil prices. When energy is expensive, Oklahoma's economy booms, and one of the odd little accidents of history is that in Oklahoma, oil wealth is actually fairly diversified in that most landowners retained ownership of the mineral rights, so as energy prices rise, royalty income floods throughout the state. The oil companies certainly get theirs, but so do the little guys, and that is a big help to our economy. Conversely, when oil prices crater, we have problems. We experienced pretty serious punctuated equilibrium with the collapse of oil

prices in the 1980s. Banks failed across the state, hundreds of thousands of people migrated elsewhere, and even into the late 1990s, property prices in metropolitan areas like Oklahoma City were still very low.

But now energy prices have fallen considerably, and we will see over time what impact this has here at home. They are still considerably higher than during our own state-level recession in the early 1980s, but lower than they were last year.

I think I am safe in predicting that if the government does do something to help the financial crisis, it will be an accident. It's clear to me that the government hasn't a clue as to what is happening, and the reason for that is mostly ideological. They believe their own rhetoric – the false doctrine of American Exceptionalism – and they can't even begin to conceptualize the dead end the United States is staring at right now. Our entire economy is built on exploiting the seven deadly sins – on penalizing the ants on Main Street and rewarding the parasitic grasshoppers on Wall Street, on taking from the poor and working and middle classes and giving to the idle rich, on rewarding corruption and destroying honesty. We think we can maintain a worldwide military empire, go anywhere and kill anyone we want, and never suffer any consequences. It is as Chesterton said, "From the standpoint of any sane person, the present problem of capitalist concentration is not only a question of law, but of criminal law, not to mention criminal lunacy."

In the real world, we reap what we sow, and it is also as the book of Sirach says, "Sow not in furrows of injustice lest you reap a seven-fold harvest." I have tried to contemplate what that might look like, and I always recoil from the vision.

These are really big thoughts, they are solemn thoughts, and we have to wonder, how do these big macro impacts, over which we have literally no control or influence, affect us here and now? What should we do?

This is the year of Paul, so let us ask him what he thinks.

Draw your strength from the Lord and from his mighty power. Put on the armor of God so that you may be able to stand firm against the tactics of the devil. For our struggle is not with flesh and blood but with the principalities, with the powers, with the world rulers of this present darkness, with the evil spirits in the heavens. Therefore, put on the armor of God, that you may be able to resist on the evil day and, having done everything, to hold your ground. So stand fast with your loins girded in truth, clothed with righteousness as a breastplate, and your feet shod in readiness for the gospel of peace. In all circumstances, hold faith as a shield, to quench all (the) flaming arrows of the evil one. And take the helmet of salvation and the sword of the Spirit, which is the word of God. With all prayer and supplication, pray at every opportunity in the Spirit. To that end, be watchful with all perseverance and supplication for all the holy ones. Rejoice in the Lord always. I shall say it again: rejoice! Your kindness should be known to all. The Lord is near. Have no anxiety at all, but in everything, by prayer and petition, with thanksgiving, make your requests known to God. Then the peace of God that surpasses all understanding will guard your hearts and minds in Christ Jesus.

Finally, brothers, whatever is true, whatever is honorable, whatever is just, whatever is pure, whatever is lovely, whatever is gracious, if there is any excellence and if there is anything worthy of praise, think about these things. Keep on doing what you have learned and received and heard and seen in me. Then the God of peace will be with you. Pray without ceasing. In all circumstances give thanks, for this is the will of God for you in Christ Jesus.

So that's the plan. But here again, these are big and solemn thoughts. Which is always where we have to start, we are Catholics after all, and the project at hand here is Catholic agrarianism. Whatever we do, if we do it without faith, without love, without charity, then we indeed are nothing more than loud and clanging noise.

If we live, we live to the Lord. If we die, then we die to the Lord. Therefore, whether we live, or whether we die, we are the Lord's.

Because our faith is real, and not merely an intellectual exercise, it has impacts on the way we live. In this, every person must carefully discern the will of God for them in their life. As the first pope, Peter, asked – How shall we then live?

Chesterton said, A dead thing can go with the stream, but only a living thing can go against it."

Which is why, for those of us who believe, the world remains a delightful and holy place, even in the midst of the thunder and noise of the departure of kings and armies.

Consider a handful of monks, who come all the way from France, to plant themselves in the midst of Protestant Oklahoma, in the mountains west of the capital of the Cherokee nation. Is there anything crazier than that? Or think about the handful of families who have followed these monks to this place, who now think about reinventing the Catholic rural agrarian ideal here and now in this age of derivatives and hedge funds and very big money. These are quests worthy of any of the grandest tales in our history.

Quests are great things. But it is as Chesterton said An inconvenience is only an adventure wrongly considered; an adventure is an inconvenience rightly considered.

Which is to say, work is involved.

If you don't like work, find something else to do.

Which brings us back to the beginning, and the question of – what is going to happen – and it's corollary – what should we be doing? What work should we do?

One big question these days is inflation versus deflation. There are certainly a lot of signs of deflation around, but I think that ultimately we will have inflation. If necessary, and it will probably be necessary, the government will literally run its printing presses,

abandoning the tiny fig leaf of “issuing treasury bonds”, and just literally creating money by the stroke of the computer keyboards. Certainly the government is already throwing money from helicopters, I believe that the latest tally shows more than \$7 trillion in actual money or promises to pay soon. More than the cost of all our ways added together plus the interstate highway system. Isn't it amazing how easily the government found this money? And how quickly they gave it to crooks, thieves, and fools?

So we can – and should – think about how to design our situations so that we are not dependent, or are less dependent, upon the unstable economic system that is unraveling before our very eyes. Remember the church teachings on the dangers of pursuing good ends with evil means. Apply that to the economy and prophesying becomes a much less risky endeavor.

Apply those same principles to a local economy, and we gain some insights as to where we should go.

So I'd like to talk briefly about the basics – soil, water – economic security and cooperative enterprise – energy and housing – and the Ember and Rogation days.

Soil.

Fertile topsoil is a precious resource, and there is less and less of it all the time. As Brother Joseph noted in his presentation, half of Oklahoma's top soil is now somewhere at the bottom of the Gulf of Mexico. I don't know if it is helping or hurting things there, but the loss of topsoil here at home is critical. If we want to go forward into a more sustainable future, we need to take care of our soil. That way the soil can take care of us.

The first rule is do no harm. No Noxious Chemicals on your soil or plants – no herbicides, pesticides, chemical fertilizers. Yes, its true, even Miracle Gro will hurt your soil over the long term. It is not nice to poison Mother Nature, indeed, 'you reap what you sow', and if you continually sow poison, that is what you will harvest. Do No Harm!

Next, cultivate an attitude of loving stewardship towards whatever land you are responsible for, whether that be a 1/7th of an acre city lot or a thousand acre farm. Soil is a vital resource, to let it just wash down the river is like flushing money down the toilet.

If you have any bare soil, mulch it. Bare soil is eroding soil. Cover it with a nice layer of grass clippings, shredded leaves, chipped tree limbs, whatever you happen to have handy – several inches “at least”. Mulch decomposes, so its like a compost pile. The floor of a forest is always covered in mulch. That's one way that nutrients are cycled.

Nutrient accumulator plants gather up nutrients from soil and make them available to other plants. Areas with perennial food producing plants like fruit trees and berry bushes will benefit from the presence of nutrient accumulator plants like comfrey, dandelion, fennel, lambs quarters, thistles, vetch, plantain, alfalfa, burdock, caraway, dock, lemon balm, sorrel, pigweed. Yes, many people consider some of these weeds, but one

person's weed is another person's valuable nutrient accumulator! One time someone showed up and wanted to help with my garden. The first thing they did was reach down to pluck up a dandelion. I am afraid I actually screeched "don't pick the dandelions!" They were very confused until I explained the importance and many uses of dandelions.

Comfrey is a useful and important plant. You can make a fertilizer tea from its leaves.

Nitrogen fixing plants take nitrogen from the air and with the assistance of beneficial bacteria in the soil, make it available to other plants. These include all the legumes (peas, beans), all the clovers and vetches, alfalfa, and some trees (black locust, autumn olive, Kentucky coffee tree, mimosa, mesquite, wisteria).

Do not till. Once you start to plow or till, you open the soil to erosion. I have never tilled my annual garden space. I keep it constantly covered with mulch, so there is a steady compost process going on all the time, just like the floor of a forest. I never walk on the garden beds, that way the soil doesn't get compacted. If I am setting out plants, I simply make a little hole in the mulch, scoop enough dirt out to accommodate the plant, and put it back in place. If I am planting seeds, I follow the same procedure – make a little hole in the soil and plant the seed. The only seeds that I have to actually remove the mulch for are carrots, which I typically mix with sand and broadcast. After they sprout and I thin them a bit, mulch goes back on the soil. Nature doesn't till the soil, but even so plants manage to take root and grow. Tilling not only exposes the soil to erosion, it hurts earthworms and other micro flora and micro fauna in the soil, mixes up soil layers, buries organic matter in the soil, and is a lot of hard work. So let's invest our hard work in other areas where it is needed, and skip the tilling this year in favor of deep mulch. Let the earthworms do the work!

Water. Water is a much bigger issue than many people understand these days. The conventional water system depends large expenditures of money and energy. Those energy flows come to us via long and fragile pipelines that are increasingly vulnerable to terrorism, weather disasters, and economic irrationality. Generally, out here I think most are dependent upon wells pumped by electricity. One important design principle is that all essential needs must have backups. For an electric well pump, this could include a backup generator, a solar pump, and a hand-bucket that fits down a well tube.

But it should also be remembered that each of these back-ups requires energy. For a generator, you must store fuel. And there is probably a limited amount of fuel that can be stored. In the event of a long emergency, which may become daily reality over the next couple of years, what happens if you are unable to obtain fuel?

So we also need to think about other sources of water, and at the household level, the most important resource is rainwater. The average rainfall for Tahlequah is listed at 45 inches/year. Average data is tricky, because we really need to design for extremes but I didn't have time to look up 20 years of weather data on this region. But y'all should do that, as a joint research project. Get monthly totals for rain/precipitation, temperatures

(highs and lows), heating and cooling degree days, for at least 10 years, and 20 would be even better. But anyway, to determine the rainfall harvest potential of a given roof, you multiply the area of the building (sq ft) times the rainfall (in feet). That gives you the cubic ft of water available to be harvested from that roof. Multiply that times 7.48 and you have the number of gallons.

So if you have a building of 1,000 sq ft, times 3.5 feet of rain water, equals 3,500 cubic feet of water, times 7.48, equals 26,180 gallons of water. My household, of two people plus occasional guests, uses 1,000 gal/month. In the heat of the summer, when I am water my garden, it can go to 8,000 gal/month. I actually have a total of 2200 sq ft of buildings, in two houses, so our potential water harvest from our roof is nearly 50,000 gallons, which would be enough for our culinary use and summer irrigation, especially since if we were dependent upon this water we wouldn't be flushing toilets anymore, so our household usage would no doubt decline.

My point is – if you don't have a rainwater harvesting system, you should start planning one and figure out when you can implement it. Water is a precious resource, and in the years to come we will come to an understanding of how precious it is. It takes 6 weeks to starve to death, dehydration will kill you in 3 days, and drinking impure water holds a host of plagues. We take water for granted, and going forward that has to stop.

Besides storing rainwater in cisterns and tanks, it is also possible to use earth structures to catch rainwater runoff so it hangs around long enough to seep into the soil. Everyone should observe their land very carefully, especially when it is raining. Where is the water going?

Catch and store water at the highest levels possible, so you can take advantage of gravity in moving it around. So if you are thinking about a pond as a source for irrigation, place the pond as high as possible consistent with the ability to catch and store enough water.

Use swales – and the difference between a swale and a ditch is that the swale has a flat bottom and very gradual sloping sides.

Wherever you catch water, you have to figure out where the water will go once the catchment – swale, pond, ditch, cistern, tank, whatever – is full. The water will go somewhere, you may or may not like where it goes if you let it find its own way, so it is better to decide where you want it to go and then develop your land so that it goes there.

Every gallon you catch and store from the rain, is a gallon you don't have to pump from the ground at a cost of money, energy, and wear and tear on your machinery.

As to purification, the handout has some online sources. The one I like the best is the slow sand filter. Totally low tech, and thus, ultimately dependable.

Food security. Economic security actually starts with food. Everyone should keep

some of their household's savings in the form of food. This is the wisdom of our ancestors. Store a year's worth of food. I consider this to be insurance just like fire insurance. I don't expect that my house will burn down tomorrow, but I pay my fire insurance every month just in case. Food storage is the same principle. I don't think that the conventional food system is going to collapse tomorrow, but if it does, I have food stored. Famine is a low probability/high impact event. Protect yourself and your family. Store what you eat, and eat what you store. And have extra on hand, to help feed your neighbor.

Plant perennial food producing plants – like fruit trees and berry bushes. Prepare your soil to receive this great gift by planting nutrient accumulator and nitrogen fixing plants as mentioned earlier in my comments about soil. Mulch. If you are going to grow fruit trees and receive a surplus harvest, you must make sure the soil can support the trees. Make sure you plant them in the right places. Once upon a time I planted a persimmon tree right on top of my water line. What was I thinking of? Actually, the problem was that I WASN'T thinking. I was in a hurry. But we don't have time to be in a hurry. You can't grow a tree in a hurry. You can't grow a beard in a hurry. You can't grow a monastery in a hurry. All of life has rhythms, and taking the time to do things right the first time saves work later on so we should always measure twice and cut once, as my grandfather used to say.

Grow a surplus to sell. If anyone needs a ready market for vegetables, the Oklahoma Food Cooperative is ready to sell just about anything you can grow. The demand for fresh, locally grown vegetables, grown with practices that respect God's plan for creation, is way ahead of the actual supply. Because the Oklahoma Food Cooperative is on a monthly cycle, I suggest that you think about vegetables to grow that are not fiddly about their harvest and that keep well. Potatoes, carrots, parsnips, beets, cabbage, we have very little of these available at any time. There are more producers raising greens – lettuces, chard, Asian greens like pak choi – and they are more fiddly about their harvest and don't keep as long, but whatever gets listed sells within the first couple of days of each monthly order.

Cooperative enterprise. Work together with your neighbors on projects like this. There's always this ideal picture of a lone family in the cabin by the edge of the wilderness, fearlessly making their way on their own. But the reality is that people were sustained not only by their personal efforts, but also by their participation in a local community. House and barn raisings were only the beginning of mutual cooperation. Harvest, milling of wheat, community ovens, all these helped communities grow and prosper. Several families could join together in a cooperative, that would work together to develop market gardens on the property of the families who are part of the cooperative. It is much easier to break out a new garden with 20 people working on it than if there are only 2. A larger group of people could also make some sensible investments in farm machinery suitable for the scale, either by purchasing new equipment or by renovating used equipment and adapting it for new uses. The cooperative method of business organization is very consistent with Catholic social thought. I would be happy to come out again some time and do a workshop to help you

design and implement your own mutual self help cooperative.

Energy and housing. My position on this is simple. Spend more on passive structures that reduce your need for energy in the first place. My attic is insulated to R-50 and the walls of my house to R-38. We tore off the south wall of our utility room to make a solar sun porch, through whose windows in the winter we receive thousands of free BTUs from the sun. My windows have R-20 insulated interior shutters, 2 kinds: one that fits snugly within the window well, for windows that get no sun in the winter. The second kind are mounted on rails, so they can slide to the side and allow sun to shine through into the house. East in the morning, west in the evening. The sunporch windows are covered at night during the winter with large 4 x 8 insulating panels. We used Remaxx, which is a 4' x 8' insulating board, four layers, gorilla taped together, wrapped in aluminum foil (for fire safety) and then some of them are covered in decorative felt. Eventually they will all be covered, but for now there is a certain industrial look to some of them. We use various other little tricks – we use a chest refrigerator, which is a chest freezer with a cheap external thermostat. Our edible landscaping completely shades the house in the summer. We have an electric hot water heater, but we have a switch on it so we can turn it on and off. Electric water heaters have low standby losses, and heat up very quickly. If our tanks has cooled to ambient, once I switch it on, in less than 5 minutes I can get a stream of hot water at the sink. This is much cheaper than an electric on demand, but achieves the same goal.

The more you can reduce your need for fossil fuels, the more security your household will have. You will be less vulnerable to the good wishes of Islamic fascists in the Middle East and crazed politicians in Washington.

Keep the Ember and Rogation days. The Ember days occur during each of the four seasons of the year. The Ember days invite us to consider the wonders of God's Creation. St. Thomas Aquinas described heaven as having – "the beauty of spring, the brightness of summer, the plenty of autumn, the rest of winter". Ember days give us liturgical ways of celebrating God's creation. The Rogation Days remind us of our utter dependence upon the fruits of the earth for our temporal living. If there is no harvest, there is no food, and without food, people perish. This has not been evident in the United States for a long time, but this long abstinence from famine may not endure through the coming years. The Rogation days and their assorted litanies and prayers are events in the liturgical year that are explicitly agricultural.

Chesterton: In the struggle for existence, it is only on those who hang on for ten minutes after all is hopeless, that hope begins to dawn."

I'd like to close with a final bit of poetry, also by Wendell Berry.

The Peace of Wild Things, by Wendell Berry

When despair for the world grows for me
and I wake in the night at the least sound

in fear of what my life and my children's lives may be,
I go and lie down where the wood drake rests,
in his beauty on the water,
and the great heron feeds.

I come into the peace of wild things,
who do not tax their lives with forethought of grief,
I come into the presence of still water,
and I feel above me the dayblind stars,
waiting with their light,
for a time, I rest in the grace of the world,
and am free.

Some Useful Resources for Agrarians

★ **Energy and Shelter**

www.builditsolar.com/ Hundreds of do-it-yourself solar projects.

www.energyconservationinfo.org My collection of energy resources and ideas, including info about Mutual Aid of Oklahoma City, which my project developing home and community scale preparation for very large scale, long lasting disasters.

★ **Community**

<http://www.transitiontowns.org/> Transition Towns wiki, info on community responses to peak oil and climate change.

www.ewtn.com/library/PRAYER/RLPRAYBK.TXT Catholic rural life prayerbook, entire text of the original 1950s edition.

★ **Water**

www.biosandfilter.org/ . Click on downloads for complete instructions on how to build a slow sand filter.

<http://www.twdb.state.tx.us/publications/reports/RainwaterHarvestingManual3rdedition.pdf> The Texas Rainwater Harvesting Manual. Soup to nuts on the subject.

★ **Growing and Food**

www.spinfarming.com A complete business plan for starting a market garden. It is worth the \$99 cost.

www.bettertimesinfo.org/2004index.htm online text of the 5th edition of the Better Times Almanac, R. Waldrop editor.

Recipe for organic fertilizer (from the creators of the SPIN farming method: Combine equal parts of alfalfa pellets, dried molasses, sugar beet residue (pellets), soybean meal, blood meal, bone meal, wood ash, and coffee grounds. Mix thoroughly, apply lightly to soil.

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www.energyconservationinfo.org
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www.bettertimesinfo.org
www.justpeace.org
www.onpilgrimage.justpeace.org (blog)
www.oklahomafood.coop

www.localfoodcoop.org

www.oklahomafood.coop/bobsblog/ (blog)

<http://www.lulu.com/content/3505495> *Gatewood Urban Homestead: city living that meets the challenges of peak oil, climate instability, and economic irrationality* – the permaculture design of my urban home.

runningonempty2@yahoogroups.com *7500+ members, discussing energy issues since 2001*

Do what you can, with what you have, where you are.

The time to build the cellar is before the tornado hits.

The time to grow a local food system is before the famines start.

The time to create a viable local economy is before the 2nd Depression gets really going.