



**2020 Vision:
Imagining An Enlightened
and Sustainable Future**

by Derek Joe Tennant

**“The point is to accomplish something.
After all, only the entire world is at stake.”**

Derrick Jensen

For Panjalat “Noon” Pungpin

May we leave an Earth for you, my granddaughter, that you
are able to enjoy as much as we have.

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Introduction

In 1961, President John F. Kennedy challenged America to put a man on the moon within the decade, and return him safely to Earth. I was 6 when he vocalized his vision, and 14 when the dream came true. In barely 8 years, what initially seemed impossible had not only happened, but had transfixed the world with wonder and awe.

President Kennedy's vision arose for many reasons. It was a grand undertaking of exploration, probing uncharted territory. It was a response to advances in space travel made by Russia that threatened the U.S. with military inferiority. Creating the technology it would require would undoubtedly fuel a burst of innovation that would move American culture ahead faster than if it was left to develop on its own. But most importantly, President Kennedy understood that by setting a goal that required Americans to reach beyond their comfort zone, to go outside the box of traditional patterns, to stretch for an 'impossible' goal, he would lead them into a new paradigm, a new Golden Age.

Today, in 2009, we face a perfect storm of problems, unprecedented in human history. The American economy is in shambles, attempting to recover from many problems caused by the poor economic decisions of multiple generations. This in turn, has rippled into a worldwide 'recalibration'. People across the globe are dying from starvation, extreme poverty, a lack of clean water, preventable and curable disease, slavery and war. Climate change, and its destructive potential, is on the mind of anyone who has access to media. Any one of these problems could take a world's resources to solve. Trying to resolve them all at once seems as impossible as putting the first man on the moon in just 8 years.

Apollo 11 clearly showed that by taking continual, carefully planned steps and accepting the risks involved, even accepting that some may have to sacrifice everything for the project, a wholly new paradigm can supplant the currently accepted worldview. Multiple paradigm shifts will be required if mankind is to overcome today's problems.

Many people across the globe sense impending evolutionary growth in that most precious of all resources, human consciousness. Indeed, it seems as if our consciousness *must* evolve, in order to deal with the great issues of today. The obvious question everyone asks is, "What will life look like after we solve these problems?" *2020 Vision* offers a few paradigm shifts that address our major issues. Time is short, and we must evaluate options we may never have considered before. Please think about these solutions with an open mind. We must seek solutions that are outside the box, solutions that may at first seem 'impossible' or even 'un-American'. Think about what is presented here; discuss these ideas with your friends and family. Come upon your own ideas and begin to share them with others. The only future that is certain is that inaction will leave us on the path we see before us today. Most of us can agree; that path is not one we want to tread. Open your mind, your heart and your soul and discover new ways of relating to each other and the world around you. Affirm your values, act on your inner wisdom. Together, let's begin to craft a future we love.

Challenge: Economics

America faces economic issues of unprecedented scope. Ever-increasing public and personal debt, corporations focused on short term profits at the expense of people, stagnant wages over decades, rising health care costs, loss of adequate retirement plans, the impending shortage of resources, the outsourcing of jobs that creates rising unemployment, the need to get off an oil-based economy are but some of the major hurdles we must overcome.

As we try to make some sense of the way forward, we also must cope with the realization that we cannot continue to tread our current path. Life can never 'go back' to the way it was when we were growing up. Talking about the loss of American preeminence in the world is taboo; to avoid facing this reality, fingers are pointed at the other political party to assign blame for economic problems and military setbacks. Even though we are but 4% of the world's population, we consume 30% of its resources and contribute 25% of the CO₂ that threatens to bring climatic calamity. Discussion rages about when we will (or did) reach 'peak oil'. No politician can get elected on a platform that advocates raising taxes, or one that prescribes cutting Social Security or Medicare benefits; yet can either problem be solved without taxation as part of the remedy? If you live in America, your life expectancy ranks #23 among industrialized nations. In the three years 2001-2003, 82 of the Fortune 500 paid no income tax on over \$100 billion in profits during one or more years; indeed, those companies also reaped over \$12 billion in tax rebates at the same time. In one of many examples, GE made \$12 billion in one year, tax-free. In 1986 there were 13 billionaires in the U.S., in 2006 487, yet during the same 25 years, the average income in America, in inflation-adjusted dollars, rose just \$800. The poorest 10% in America earn 1.8% of the total income in a year, and this ranks #83 in the world. In Japan, ranked #1, the figure is 4.8%. In America, 21% of children live at or below the poverty line. In Germany the figure is 10.2%, in France 7.5% and in Denmark 2.4%. In spite of these figures, European nations also appear to value time spent with young children more than we do, mothers receive paid time off after childbirth, as much as two years, and fathers as much as six months.

If we look back on the nation's response to the Great Depression, the last time we faced economic issues on this scale, we find that President Roosevelt forged the New Deal and set the country on a course that would be the foundation for the economic success we enjoyed in the 1940's, 1950's and 1960's. Looking back on what he had accomplished during his State of the Union address in 1944, he noted,

"We have come to a clear realization of the fact that true individual freedom cannot exist without economic security and independence. People who are hungry and out of a job are the stuff out of which dictatorships are made. In our day these economic truths have become accepted as self-evident. We have accepted, so to speak, a second Bill of Rights under which a new basis of security and prosperity can be established for all, regardless of station, race or creed."

He delineated these rights, including:

- The right to a useful and remunerative job
- The right to earn enough to provide adequate food, clothing and recreation
- Freedom from unfair competition and domination by monopolies
- The right of every family to a decent home
- The right to adequate medical care
- The right to adequate protection from the economic fears of old age, sickness, accident and unemployment
- The right to a good education

These are the dreams parents have for their children, that they may enjoy these benefits from life. No one is arguing that the government should provide these benefits automatically, only that the opportunity is available and that government blocks the people and corporations who work against these 'rights'.

We seem to operate under many fallacies:

- The world wants to be like Americans
- U.S. economic power can't be beat
- U.S. capitalism, favoring capital over workers, is best
- Material abundance will make us 'free'
- Military superiority will make us 'secure'
- We are the richest country in the world
- Focusing on short term profits leads to the best outcome for all

Events of the last few decades have shown that all of these statements are false to some degree. Our society is becoming more rude and polarized every day. The majority of workers make less than workers thirty years ago, and have seen their retirement plans disrupted by corporations who no longer offer pensions and stock market bubbles that burst and take more than a decade of growth away in a matter of days. More and more health care costs are being shifted off the corporate balance sheet, onto the family budget. While the stated unemployment rate in mid-2009 hovers just under 10%, that only reports the people actively receiving government benefits; the true number of unemployed people is double that figure. Buying more stuff doesn't make us happy, we cherish time with our family more. Yet we work more hours per year than any industrialized nation, including Japan. And we borrow to buy, having adopted the model of refinancing the house every few years to clear the balance from the pocketful of credit cards, and fuel the next round of consumption. We need to face the facts: it is morally wrong to borrow to buy material goods. It is much more expensive to pay later. The harm from both pollution during the manufacturing process and the relegation of so much of the planet's finite resources to landfills is indefensible, and the Earth cannot support other nations, China and India in particular, living an identical lifestyle. This puts us in the difficult role of trying to change our behavior while at the same time, telling others they can't emulate us. Between government debt and consumer debt, the American economy is a 'dead man walking'. We must disconnect from the oil-based economy. When oil is \$70 per barrel, we send \$840 million dollars a day out of the country to buy oil. Some of this money goes to friends, some not. Burning coal and oil for power and

transportation has pushed the environment to the brink of collapse, and we can't even predict today if we can stop calamity in time. Yet we continue to argue over 17 mpg vs. 23 mpg, and differences between the auto efficiency mandated by federal and by state (primarily California) governments. We continue to define economic progress and health by growth, more spending next year than this year. We ignore that focusing solely on profit and growth is very destructive for some aspects of living a large, productive and happy life, such as:

- Education
- Water
- Seeds
- Health care
- Food

Economists don't even have a word for less spending; they refer to it as 'negative growth'. There is no recognition that there may be a point of 'enough', beyond which more is not necessary. We allow huge trade deficits to send our capital overseas, and make ourselves beholden to other countries, China, Japan and the United Kingdom in particular. What must we do, what must we overlook, so that these nations will continue to lend to us?

In fact, even our monetary system, the very creation of our money, relies on debt.

Money Creation

The year 2008 will be remembered as the year the sub-prime mortgage crisis shook America, and consequently, the world. The memory that stands out for me occurred when Secretary of the Treasury Paulson issued a 3-page demand for US\$700 billion in funds. The cynical voice inside screamed 'the Republicans are looting the treasury on the way out the door!' while the reasoned voice quietly, calmly said 'there just might be a need for this after all.' I, like most Americans, had a woeful understanding of basic economics. I knew it was important to save for retirement, because Social Security may not exist in 2020, when I qualify for it under current rules, at least in the form it does today. I knew it was never intended to be the sole source of income for retired people, it was meant to be the third leg of a three-legged stool: Pensions, Savings, and Social Security. I knew that owning a home was the American Dream, and that the appreciation in that home, which had begun to rise by tens of thousands of dollars every year in some parts of the country, was the best way I had to save for my Golden Years. Pensions, at least company-funded pensions as they existed when Social Security was created, have long been cast aside for most Americans.

I understood about the time value of money, that money saved would grow because of compound interest to become huge sums decades later. This fact also explained why, in my home mortgage paperwork, it was explained in a section that no one ever reads that my loan of \$378,000 would actually cost me \$969,880 when I had paid it back, assuming the adjustable interest rate did not rise to its maximum. In that event, "*Unlikely*" the mortgage brokers all said, I would pay back \$1,686,895 instead, having seen my monthly mortgage payment

nearly double after just 5 short years. Many Americans took on this kind of variable debt, never expecting the worst to happen. This was part of the problem that arose in 2008.

I understood that making just the minimum payments on the credit card balances I carried ensured I would never have them paid off. Yet more offers for credit arrived in my mailbox, and often it was an offer I just couldn't refuse. I knew that taxes were taking over 45% of every paycheck, between federal and state income taxes, social security and Medicare taxes, disability tax, sales tax, the list goes on and on. And I heard on the news that all levels of government, despite this degree of taxation, were having difficulties balancing their own budgets. I also know from the pundits on nightly television shows that the mortgage crisis became a worldwide concern due to new financial instruments only recently invented, hedge funds, mortgage backed securities and derivatives. These new products ensured the banks made money, but managed to spread the 'risk' and consequently huge economic failure, all around the globe.

Beyond these facts, however, my knowledge of how money works was limited by the lack of education I received attending U.S. public schools. Our education system does not teach children about money. I remember in fourth grade, in Milpitas, California, how Friday was 'deposit day'. We would bring our few coins to class, fill out envelopes and include our savings account passbook, and turn the whole package in to our teacher. The following Monday, we would get our passbook back, with the entry made for our savings deposit for the week. This was one teacher's attempt to instill children with the desire and ability to save for a rainy day. I changed schools before entering fifth grade, and never encountered financial education again.

Indeed, if your education was as sparse as mine, you will be surprised at what I'm about to share with you. Let me ask: where does our money come from? First, let's look at coins. The U.S. government mints coins, because the Constitution grants the government to ability to 'coin money'. Now let's look at bills, the papers that say "Federal Reserve Note" across the top. Also, because of the Constitution, printed by U.S. government printing presses, right? Despite saying 'Federal', the paper bills we use are printed by the government, but purchased for the cost of printing by the Federal Reserve. Those bills are not put into circulation by the government. The Federal Reserve, commonly referred to as 'the Fed', loans money to the U.S. government, charging interest of course. Only about 3% of the money supply in the U.S. today is in coins or paper money, the other 97% is nothing but an electronic entry into a database. The government used to tell us how much money was in the system, but they announced a change in that policy in 2006. We no longer know how much money is circulating today. That last report showed there was less than \$1 trillion in actual bills and coins. Some of that is held overseas, outside the country, and some in jars, possibly in your home. The Fed also loans money to other banks, charging them interest at the lowest available rate. This allows local banks to lend to you and I, and charge us more interest, thus generating their income.

But let's look even deeper into the system. Where does the actual money come from that the Fed loans to the government and to other banks? Where is the

source of the money you borrow from your local bank to buy a car, or your dream home? Our economic system today is referred to as a 'fractional reserve' system. This means that we copy the activities of goldsmiths from the 1700's. In those days, in countries where gold was the standard currency, it became difficult to carry your gold with you when you wanted to make a purchase. It was hard to keep it safe from bandits. It was heavy. For these reasons and more, people began to leave their gold with the local goldsmith, often the owner of the only safe in town. In return, the goldsmith gave them a paper receipt. This receipt entitled the bearer to redeem the certificate for a certain amount of gold. In this way, I could give you value in trade without having the hassle of carrying and separating the appropriate amount of gold for our transaction. Goldsmiths soon realized, however, that people liked this system so much, they rarely came back for the gold itself. In fact, the goldsmith rarely handed out more than 20% of the gold he had on hand. Soon, they were giving out more receipts than they actually had in gold. They were holding gold for only a fraction of the receipts they were issuing, to cover for redemption requests.

Our current monetary system works in much the same way. Banks used the gold standard into the twentieth century, but in the last several decades, our money is no longer backed by anything tangible; not by gold or silver, for instance. I tend to think of money as a receipt for my labor, that allows me to trade my work for some product of someone else's work. If only it were that simple!

A bank is required to have assets amounting to less than 10% of its loans. If you deposit \$10,000 into a 6-month Certificate of Deposit with your bank, it can now loan \$100,000 to someone. Also, money is created when a bank offers you a loan. Your promise to pay is the 'asset' that the bank credits to your account, so that you can pay for your purchase. For example, let's say you want to buy a new car. You get a loan of \$30,000 from your bank. The bank needs to have \$3,000 in available assets to cover your loan, and they credit your bank account with the loan proceeds. You go to the dealer and write the check for the \$30,000 purchase. The dealer takes that to his bank, and once he has deposited the check into his account, that bank now has \$300,000 that can be lent to another borrower, someone buying a home, let's say. Did the bank have \$300,000 in deposits to loan the homebuyer? No. Yet that amount of money has been 'created' just by making some electronic transfers and journal entries. In other words, the bank 'creates' money just by adding an entry to an account, out of 'thin air'. In 2008, the two largest banks in America maintained an asset reserve of less than 2.5%, loaning over \$40 for every \$1 in assets. This points to the source of the problems that surfaced in 2008: As property values fell, banks were required to recalculate the value of their assets, and if they fell below the reserve threshold, they had to find some way to gain assets in order to have the ability to lend or else stop lending. Thus, the government thought that by giving 'bailout' funds to banks, they would start lending again. Most banks, fearing that the value of their assets would continue to fall, held onto the new cash and refused to lend again until they could feel confident they would avoid the same trap. In some cases, they used the bailout funds to buy other banks, other assets, or regrettably to pay executive bonuses.

The biggest problem with this method of creating money is this: the money required to pay the interest on the loan *has not been created*. In order to get the money you need for interest, someone, at some time, must default on his or her loans, allowing the bank to foreclose the property and resell the asset to someone else (creating new money through debt) or the banks must find someone new who will take out a new loan. In the first case, someone defaulting, are you comfortable in a system that requires devastating financial loss on someone else so that you have the money you need for your own debt service? And in the second case, that is the classic definition of what is commonly called a 'Ponzi scheme'.

You can see another side of this as you examine the government bailouts of 2007, 2008 and 2009. The U.S. government can only have money to spend in two ways, by collecting taxes or by borrowing it. If it borrows from the Federal Reserve, the Fed has the money printed or makes the journal entries, and the federal government adds the new loan to the national debt. The Fed receives a bond in exchange, which it can hold, collecting interest, or sell anywhere in the world. Today the national debt is almost as much as the annual economic output of the whole country for an entire year. Luckily, no one expects us to ever pay off the debt; we only have to pay the interest on the debt, since the money was borrowed from an entity *outside the government*. Sadly, soon just the interest on the national debt is going to be more than we can afford to pay, leading to either wholesale service cutbacks, the end of entitlement programs like Social Security and Medicare, or inflation spirally out of control. If it taxes businesses or people, well seriously, when was the last time *you* voted for a politician *because* he said he would raise your taxes? Look at the difficulties California has gone through with its recent budget shortfalls, and a minority party who held the line against tax increases. Even years ago, when George H. W. Bush used the popular 'Read my lips: No new taxes' campaign slogan, he was then roasted during his re-election campaign for his failure to hold to that promise. And lastly, if the government borrows from sources other than banks, China for instance, it finds itself suddenly beholden to that power, just as a tenant is dependent upon the landlord for his continuing shelter. The government may be forced to concede a position in negotiations that have nothing to do with money. Looking the other way as China abuses its citizens' human rights and ignoring the impact China's use coal for power generation has on the global climate are two examples. The EPA says that on some days, 25% of the smog in the air above Los Angeles comes from China, yet America can't afford to upset its biggest lender by complaining. It is difficult to pin down exactly how much has been borrowed by the U.S. government in the last two years. Between the bailouts of AIG, Detroit automakers, Wall Street brokerages and banks, the TARP (Troubled Asset Recovery Program, originally intended to help homeowners avoid foreclosure but now used for other expenditures instead) and the War in Iraq, that figure is more than *two trillion dollars*. Spent outside the normal budget process, and without raising any taxes that we can see, the interest on this endeavor is well over \$100 billion a year. I'm old enough to remember when \$100 billion was a lot of money, and now that amount has just been added to our spending burden, on top of all

the other government programs we love so dearly. Hurricane Ike was estimated to have caused \$29 billion in damage in 2008 in Texas. Those of us, who were there, thought there was a lot of damage. The government bailout makes \$29 billion seem small in comparison.

There's another aspect of this that troubles me greatly. That annual \$100+ billion dollars in interest is going to a for-profit entity. Interest on the entire national debt is near \$500 billion a year now. Typically, a capitalist would say, 'Of course, in return for the use of their money, they are owed interest.' But as we have seen, the Fed didn't have \$2 trillion laying around in some low-interest earning passbook savings account; *they created \$2 trillion out of thin air*. How is it that they are 'entitled' to anything? Recent United Nations statistics show that 1% of the world's adult population, about 37 million people, own 40% of all global assets. In addition, 10% of the people own 85% of the global assets. As modern economics (short sales, lending, currency exchange, derivatives and yes, even slavery) has fed the greed of some of the rich, the gap between rich and poor has grown at rates higher than the rate of inflation. The majority of the world's population has no interest in the concepts of this book, because they live on less than \$2 a day in income and don't know where their next meal is coming from. Their families, for generations, have always been below the poverty level, and they have no hope of ever rising above it.

A Plan for New Money

So how can we address this issue? Before I lay out a plan, I ask that you suspend your tendency to reject, out-of-hand, ideas that seem initially to be preposterous. I'm going to ask that for one simple reason, the plan has been tried and proven on numerous occasions throughout history and around the world, but our lack of sound financial education has prevented us from being aware of this fact.

In this first example, let's step back into history, specifically to 1860, as Abraham Lincoln is elected to be the first Republican President of the United States. The Republican Party had been created a few years before, in Kansas, to prevent the importation of slavery into that state. The party platform included promising homesteads to farmers and emphasized improving education and fostering industry and railroads. It also proclaimed that free market labor was superior to slave labor. Lincoln faced issues far beyond the one of slavery he is most identified with today. Indeed, in his first days in office, the federal government hung on the brink of bankruptcy. Congress didn't even have the funds to pay itself. Yet by the time he was assassinated in 1865, his administration had formed and equipped the largest army in the world at the time, freed 4 million slaves, and launched this nation as the greatest industrial giant the world had seen. A continent-spanning railroad was constructed, the Department of Agriculture and the Bureau of Mines were created, higher education developed with the founding of the Land Grant College System, the Homestead Act was passed, beginning the flood of colonization into the Western states, and worker

productivity increased by more than 50%. How did he manage to take a bankrupt government to such heights of accomplishment?

He created a monetary system referred to as 'Greenbacks'. This was a paper currency, issued by the government in much the same way as the Fed creates money today, just by printing it. It used man-hours rather than gold as its basis. A quote from Lincoln is insightful, "The wages of men should be recognized as more important than the wages of money." Using about \$400 million in Greenbacks to pay the Northern soldiers fighting the Civil War, that money flowed into the economic system and circulated as a measure of the value of labor and goods. Because it was not borrowed from outside the federal government, there was no interest to pay, interest that would have totaled 10 times the borrowed amount, or \$4 billion, by the time it could have been paid off. It also put these funds into play without taxing the population. Lincoln's economic advisor, Henry Carey, understood well the lessons of the American Revolution, when the fledgling country used a fiat currency to fund its war of independence from the official banker of the Colonies, the King of England. Using the Greenback to fund government payrolls and other spending, Lincoln enjoyed the prosperity that capital generates when it moves throughout a system without having to generate profits for a few from the labor of many. No one was shorted or cheated by this, banks continued to loan money and collect deposits, they just didn't loan to the government anymore.

In a famous editorial in the "Times of London" newspaper, note the blunt opinion concerning the creation of Greenbacks outside the U.S.:

"It [America] will pay off debts and be without debt. It will have all the money necessary to carry on its commerce. It will become prosperous without precedent in the history of the world. The brains, and wealth of all countries will go to North America. That country must be destroyed or it will destroy every monarchy on the globe."

While some have questioned whether Lincoln's policy of printing money without any tangible backing caused inflation, it is clear that during wartime, severe shortages occur and that is what drove up prices. Thomas Edison was quoted in an interview in 1921, "If the nation can issue a dollar bond, it can issue a dollar bill.... The difference between a bond and a bill is that the bond lets the money broker collect twice the amount of the bond and interest as well.... Currency pays nobody but those who contribute in some useful way. It is absurd to say our country can issue bonds but not currency. Both are promises to pay, but one fattens the usurer and the other helps the People."

The Constitution grants the government the right "to coin money". Long ago we delegated that right to the private Federal Reserve System, retaining only the task of minting coinage within the purview of the government itself. As we have seen, however, the modern banking system collects interest for the use of money that is created out of thin air. There are no shareholders, or owners, or even depositors who have let their reserves of cash be used by others and need to be compensated. It was simply an entry in the ledger that created the money. The

banks have no claim to interest, and even less claim to interest charged at rates of 18%, 21% and in some cases, 36% per year.

But can this idea work today, in our modern world? It already is, within the economic system of China. Shortly after Congress agreed to the \$700 billion bailout requested by Secretary Paulson, China announced its own, a nearly \$600 billion bailout. There were two primary differences between these bailouts. First, China didn't have to borrow the money, so \$600 billion is the end of it, they won't be paying interest for the rest of time because of this spending. Secondly, they issued over half of the funds in the form of certificates redeemable for Chinese-manufactured goods, especially home appliances. Imagine that suddenly there is \$300 billion flooding into the retail market, earmarked for refrigerators, washers and dryers, air conditioners, at a time when less than half the population has these items? There is the initial sales increase, and then the wages paid to workers to manufacture the items, then the added spending those workers now undertake since they have better jobs, etc. The other half of the Chinese bailout is funding infrastructure improvements, much as the New Deal of President Roosevelt helped the U.S. following the Depression of the 1930's. Again, however, Roosevelt borrowed the money and began what is now a national debt that far exceeds our ability to repay.

Before you discard this idea as fanciful, realize that to a small degree, it is already happening in the U.S. Note excerpts from an article in USA Today, 10 April 2009:

Workers with dwindling wages are paying for groceries, yoga classes and fuel with Detroit Cheers, Ithaca Hours in New York, Plenty in North Carolina or BerkShares in Massachusetts. About a dozen communities have local currencies, says Susan Witt, founder of BerkShares in the Berkshires region of western Massachusetts.

Under the BerkShares system, a buyer goes to one of 12 banks and pays \$95 for \$100 worth of BerkShares, which can be spent in 370 local businesses. Since its start in 2006, the system, the largest of its kind in the country, has circulated \$2.3 million worth of BerkShares. In Detroit, three business owners are printing \$4,500 worth of Detroit Cheers, which they are handing out to customers to spend in one of 12 shops.

During the Depression, local governments, businesses and individuals issued currency, known as scrip, to keep commerce flowing when bank closings led to a cash shortage.

How is this different from the U.S. government printing legal tender without resorting to borrowing? But for scale, it's no different. And it works. However, it is really but a Band-Aid placed over a wound that requires innovative, cutting edge surgery.

"With computerization, robotics, advances in genetics and food growing, we have the potential to turn the planet into a sustainable ecosystem capable of supporting all. This is not a time to be saddled with an 18th century money system designed around the endless rape of the planet, or based on the robber baron mentality and flawed with Unrepayable Debt. A

new monetary system with enough government control to ensure funding of vital issues could unlock the creative potential of the entire nation.”

Roger Langrick, Canadian money reform advocate

Actually, Mr. Langrick is wrong. Such a change in our monetary system could unlock the creative potential of the *world*. Let's look in detail at how this might appear.

The proposal is this: that the Congress take back the right 'to coin money' as granted by the Constitution. The Federal Reserve can either be disbanded, or can be absorbed into the federal government structure, becoming a function of the Treasury Department. This is what most Americans believe is the case, mistakenly, already. An independent audit of all banks, including those that make up the Federal Reserve System (commonly referred to as 'the Fed'), might find that the entire system is bankrupt anyway, due to the current state of the derivative market. Under the concept of 'too big to fail' and the coverage extended by the Federal Deposit Insurance Corporation (FDIC), banks would be placed into federal receivership if that were true.

There are several advantages to this approach. For one, it would actually increase the transparency and accountability of the economic engine. Today, people around the world wait with bated breath as the Fed convenes its regular meetings, and makes pronouncements bearing on the strength or weakness of the economy and what the Fed intends to do to manipulate the situation. It is always unclear, although the Fed expresses the desire to benefit the people, who actually sets the goals the Fed is striving to achieve when it adjusts interest rates, and who ultimately benefits. The Fed is a private, for-profit entity that profits from loaning the U.S. government money that it doesn't have to begin with, money conjured out of thin air.

No one votes for the members of the Fed, although the President appoints the Chairman of the Fed. We have been taught to believe that there is an unavoidable 'business cycle' inherent in our system. Money becomes plentiful, lots of loans are made, the new money buys goods and services and life seems good. But eventually there is too much money in the system, and by raising interest rates and making new loans difficult, people experience problems, jobs are lost, loans go into default and foreclosure, homes revert to the banks that offered the loans originally (to be resold for profit by the bank) and the process begins again. If however, interest was a fixed (and not usurious) amount, and the creation of new money was constrained instead by other limits, no such business cycle is required to allow the economy to function. Everyone would know what limits are in place, what to expect, and we could plan our business and personal lives accordingly. The limits would be set by lawmakers in public debate as now occurs within our democracy. And ultimately, if we are unhappy with how the process is being administered, we can vote the rascals out!

Many people express the feeling that the government is not to be trusted. They feel the government is not responsive to the people, and usually have a valid reason for feeling this way. We will look at some ideas to help alleviate these misgivings shortly, but first, let's look at them within this particular context. If we

leave the system working as it does today, we allow big business (large, often multinational, corporations and monopolies) to:

- buy competitors, the media and even the government itself. Corporate and political action committee (PAC) campaign contributions dwarf the contributions made by individuals to political candidates
- lend money to consumers, often at high interest rates, and quickly foreclose on property when loan repayments are late. The consumer loses whatever payments have already been made, counts his or herself lucky if they can avoid paying an income tax on the cancelled debt, and the company or bank gains possession of an asset for free that it can now resell
- control who can or cannot apply for loans
- loan money to hedge funds, that manipulate all types of securities markets not only through tactics like short selling and volume trading, but by creating new products like derivatives, which few people understand or can adequately price

On the other hand, we trust the government to:

- wage war
- keep us safe
- contribute to our general welfare through various public programs that range from building dams and roads to managing parks, Social Security and Medicare

Why won't we allow government to control the money supply? The current system allows a for-profit enterprise to 'print' money at the people's expense. That isn't fair, it's greed. What is wrong with our system today is not that there is borrowing and lending, but that there is interest that benefits for-profit banks that gave up nothing of their own to earn it. It only makes sense to allow the government to bring transparency and accountability to this process.

So what are the mechanics of how this new system could work? Let's use the term 'Greenbacks', just because that is what was used before, during the Civil War, with such great success. For the purists among us, let's first commission an independent audit of banks today. Again, as we have seen, many if not most are already bankrupt, and staying in business using smoke and mirrors. A few of the largest are so heavily invested in derivatives, that if that market collapses they will fall in a day. And just as a note of caution, since the collapse has not yet happened as this book is being written, the total derivatives market was valued at the end of 2007 at *six hundred trillion dollars* (Wikipedia), many, many times more than the entire money supply on Earth. There is no way that any bank will be bailed out if these bets fail.

Any bank that fails the audit should be handled according to our current system, and placed under the control of the government. Some people object to 'nationalizing' businesses, and the term 'socialism' is considered to be a slur in many circles. But if you actually parse what happened during the bailouts of 2008

and 2009, where the government gave banks and financial institutions (and automakers) money to stay solvent in return for some amount of stock and/or control, many businesses are at least partially nationalized today. In each case, the decision was deemed to be the most appropriate one to make at the time, either because the business was 'too big to fail' or because the political and economic ramifications of bankruptcy were expected to be huge.

If you are old enough, you may remember the U.S. Postal Savings Service (USPSS). From 1911 to 1967, the USPSS, an agency of the government, provided banking and savings services. It had been established to encourage immigrants to stop holding their money under the mattress or in jars at home, had a low ceiling on the amount an account could hold, and paid a minimal amount of interest. The idea of the government holding the money felt more 'secure' to many immigrants, who didn't trust banks, either because of bad experiences with them in their homeland or because (especially in later years) of the difficulties with banks that occurred during the Great Depression. It was those issues in the 1930's that led to the creation of the FDIC, among many other guarantees. The USPSS became unnecessary due to competition from banks, when banks raised interest above the rate being paid by USPSS, and people became confident that FDIC insurance would cover any losses resulting from a bank failure. This confidence has developed over time, as each year many (usually local) banks fail and FDIC makes all depositors whole. If the government were to take over banks that are insolvent, this would provide the infrastructure needed to revive the USPSS. Less than \$1 trillion would buy the 'book value' of all U.S. banks today, the value of all their physical assets like land, buildings and office equipment, and less than \$2 trillion would buy all bank stock. If the government were to just convert a few of the larger bank networks, there would be enough facilities to enable every citizen access to deposit, checking, savings and loan services.

Let's look at another aspect of this concept: creating Greenbacks. Under the current system, the government issues bonds, basically IOUs, and the Federal Reserve buys them. The Fed prints paper money (Federal Reserve Notes) or makes an entry into a computerized accounting system, to allow the government to have constructive receipt of the proceeds of the sale. The bonds include a stated interest rate, to be made at regular intervals over the life of the bonds. The Fed may hold the bonds or sell them to others, including many governments around the world. China, Japan and the United Kingdom buy many of the bonds that are sold overseas, today nearly \$1.7 trillion of our national debt is held by foreign entities.

The government, under the new system, would print the Greenbacks and begin to pay the interest and to redeem the bonds using the new currency. There would not need to be any adjustment in value, exchanges would be made dollar for dollar across the board. Interest would be paid in Greenbacks, and when the government needed to pay for goods or services, Greenbacks would be used. The government could redeem all bonds as they come due, or in a better scenario, could redeem all Greenbacks immediately, thereby ending the tyranny of paying interest (currently nearly \$500 billion each year). There should be no

problem with either method; bondholders know they run the risk that any bond may be called early. It certainly would be helpful to our economy if we could eliminate the debt service we now endure.

To put this in perspective, let's look at 2005. That year, the total federal income tax collected was \$927 billion. (Look at how that compares with the figures being tossed about in 2008 and 2009 during the bailout) The interest on federal debt in 2005 was \$352 billion. The total assets in the form of bank credit equaled \$7.4 trillion. Interest on that debt, paid by citizens and corporations (assuming 5% average interest rate, actually lower than it would be in reality) equals \$370 billion dollars. If we eliminate the national debt and the need to pay that interest, let interest from all the bank loans flow to the government after the banks have been declared insolvent, and assign half that interest received to cover the costs of maintaining bank branches around the country, the taxes needed for that year's federal spending would equal \$390 billion. The total money supply in 2005 was \$9.7 trillion. That means, if the government just printed the money needed instead of taxing individuals, the inflation rate would be 4%, less than the money supply grew in 2006! [Even though the M3 measure of the total money supply is no longer released by the Fed, economists compiling figures from various sources reported an unofficial result for 2006 that shows the supply increased 13%.]

Also in 2005, America's Gross Domestic Product, the output of our economy, was \$12.5 trillion, but 12% of the population was not working, either receiving unemployment benefits, long out of work, or under employed (working part time, not full time and not by choice). If we had enjoyed full employment the government could have spent \$1.7 trillion in new money to pay the unemployed to work on new projects without increasing price inflation. Using government spending to ensure full employment means that more money is available to purchase goods and services. As long as new money creates demand, it does not create price inflation. Also, according to the UN, \$80 billion would be enough to cut worldwide poverty and hunger in half, achieve universal primary school education, cut the under 5-year old death rate by 2/3, cut maternal death in childbirth by 3/4, begin to reduce HIV/Aids and gain access to clean water for half the 1.2 billion who currently lack it. Wow. Add to that the concept, which the U.S. actually has been trying to act upon in recent years but can't get agreement from the banks, of forgiving third World debt so that developing countries can spend their money on their own people instead of debt service, and we begin to rehabilitate the perception of America around the world. Imagine doing all of this and having no income tax at the same time! A 1997 UN report stated that if relieved of annual debt and interest repayments, the money freed up in Africa alone would save the lives of 21 million children and provide basic education to 90 million women and girls in the first 2 years. None of the Third World debt, totaling \$2.2 trillion now, began life as real money owed to anyone. It was brought into existence out of thin air. No one loses anything by taking it off the books. Let the banks carry a permanent account in the amount of the debt forgiven, so that they don't see their 'assets' reduced impacting their ability to

lend new money to others. Or as we are offering in this paradigm shift, get the banks out of lending altogether.

Since some of the money could be spent in ways that generate income: credit that returns interest, housing projects that collect rent, purchasing existing adjustable rate mortgages that are set to adjust upward and freezing the rate at the initial low level and collecting the interest on behalf of the people, there would actually be more money available for the government to spend on new projects. There is a great need right now for the government to fund projects relating to the climate crisis, for example. Or the government might want to remove some money supply and lower inflation even further. If funds are used to put unemployed people to work in a 'full-employment' program that creates new products and services, inflation will not be a factor even if more money is 'printed' by the government. Demand increases as supply increases; therefore there is no inflation.

Now let's go back to something mentioned in the example from 2005: government loans. If the government were to take over the banks, either through receivership of those that are insolvent, by buying up all their assets using Greenbacks, or by buying all their stock and becoming de facto owners, all loans would be taken over at the same time. Subsequently, the interest being paid on the loans would come into the Treasury, instead of the banks. Loans could all be adjusted so that the universal interest rate charged is 5%. Part of the issue surrounding for-profit banking is usury, charging excessive interest.

Unfortunately, the very people who suffer the most from high interest rates, the poorer people of our country, are the very people who pay the highest interest rates. When interest rates are above 20%, and on many loans today this is the case, the borrower pays back the original loan amount several times over before the payment cycle is complete. Indeed, it is by charging interest rates that are exorbitant that some employers manage to keep slaves in debt bondage, never earning enough to overcome the compounded interest that accrues on what was originally, a very small loan.

The government has used Small Business Administration (SBA) to issue loans for years, allowing borrowers who would not otherwise qualify for loans from banks to obtain funding at below market interest rates. These SBA loans are also made to citizens who have lost homes or businesses during natural disasters, and often have temporarily become unemployed due to the event and therefore fail to qualify for a 'normal' loan. As we see the difference that is made in the lives of our neighbors from SBA loans, and on the poverty-busting success of micro-finance (small loans to poor people with minimal interest rates, especially to women in developing countries) we must explore this avenue to overcome the pockets of poverty and despair that exist today within our own nation.

There would still be a useful place for private banks, insurance companies, finance companies and broker/dealers that would be offering loans and making money by borrowing from the government at low rates, and lending that money out at higher rates. Many of us actually think this is how the system works already! The big difference under this new system is that we would be off of the 'fractional reserve' system, which allows banks to lend money they don't have.

After the switch to Greenbacks, only the government can lend and create new money. All private lenders would be subject to a 100% reserve requirement, meaning they had to be lending their own money. At last, the idea that interest is justified because of the risk of loss and the loss of use of money will be true.

If you are still concerned about the government taking over loan servicing, note that there is more money invested today in government bonds (\$12 trillion) than has been borrowed through bank loans (\$7.5 trillion). As the government bonds are redeemed, the investors will be looking for new ways to get that money earning interest, and banks could sell some of their loan portfolio to individual investors, rather than let the interest flow into the Treasury.

When the government is the lender, it would continue to service the loans once they have been funded. The practice that has been developed only in recent years of bundling just a fraction of many assorted home loans into a 'mortgage-backed security' will cease. In hindsight, many believe that this practice was a sly attempt to hide the many bad loans that were being issued. If the bank has issued a 'no doc' loan, one where very little is known about the borrower, and it tries to sell that loan in one piece to someone else (and avoid the risk of default) the buyer might ask hard questions about the borrower, questions the bank may be embarrassed or unable to answer. The 'no doc' loan, short for 'no documentation', is just another example of how banks have gotten used to the idea that the government, or in other words: the taxpayers, will always make sure they are free of the risk of bankruptcy if they make bad loan decisions. There are countless cases where borrowers making \$35,000 a year, took out home loans of hundreds of thousands of dollars, just by signing an application that stated they made enough to handle the loan payments. I personally know of a loan made to someone who made \$37,000 a year as an auto mechanic and the loan amount was \$1.1 million. Borrowers justified this by assuming the price of the home would continue to rise, and their income would also rise, and after a few years they could refinance into a new loan with lower interest rates and smaller payments. No one expected that home prices would fall. Banks had discovered a way to move the risk of default off their own shoulders onto someone else's, and used the creation of mortgage-backed securities as a way to prevent investors from being able to identify any particular loan. They happily collected their closing fees and doc fees and fees for originating the loans, and then fobbed the 'toxic' loans on investors worldwide. Thankfully, the new paradigm can be constructed to return us to lending sanity, to limit lending to those who qualify to accept the commitment of repayment, and to avoid the pitfalls and temptations that result from selling off loans to third parties.

When people think of the government running any project or performing any task, there is a fear that it will not be run well. Often, the state-run Department of Motor Vehicles (DMV) is thrown out as the prime example of government-controlled mayhem, at least in California. 'Do you want your bank run like the DMV?' one might ask.

Actually, no I don't. At least not like my own experiences at the local office, with its long lines. But the people who I have worked with at the DMV office know what they are doing, are pleasant, and always very helpful. Really, it's not that

the DMV is trying to make my life difficult, they simply seem to be understaffed so that I have to wait some amount of time for service. The staff is only enforcing regulations, not making them up as they go along. If I have an issue with how a situation is being handled, I can complain; to my legislator if I think the law is wrong, and to the manager of the center if I feel a staff person has serviced me poorly. If enough people were available to help me without a long wait, I'd be perfectly happy. Herein lies the clue; government workers are just like you and I. They want to do a great job, but they don't set the budget. I don't want to learn everything about motor vehicle laws, so I depend on them to help me, and they do. If the government would approach the business of banking like any private bank would, and ensure that adequate attention is being paid to the front of the house, we will be unable to distinguish between a government-run bank and one that is privately operated. The IRS tried an experiment, allowing subcontractors to operate part of its collections work. It quickly found that the subcontractors were less efficient than the IRS's own division, and canceled the contract. Perhaps because non-governmental entities are for profit it makes them less cost-effective. And we all know, in the case of franchise businesses for example, that one branch of a business can run efficiently and with great customer service, while another branch should be shut down. Just being a function of government does not mean it is inherently inefficient.

The government would also be able to manage the banking system more efficiently under this new system, as there would only need to be one clearinghouse for all transactions. The ability to 'float' a check would go away; meaning as you make a deposit into your account, there is no need to wait for the various banks involved to transfer money back and forth to settle accounts. Losing this level of complexity would save much of the expense of handling the basic banking services. Every transaction clears immediately, utilizing technology to increase efficiency while lowering expense.

As part of our overhaul of the financial system we must rescind Executive Order 12631, signed on March 18, 1988 by President Reagan. This order, not passed by Congress, created a team formally known as the Working Group on Financial Markets, commonly called the Plunge Protection Team (PPT). In part, it is charged with "recognizing the goals of enhancing the integrity, efficiency, orderliness, and competitiveness of our Nation's financial markets and maintaining investor confidence". The actions of the PPT are taken in secret, and can only be deduced or pieced together in hindsight. Few statements verify the fact that the PPT exists, but chief among those are comments made by the former advisor to President Clinton, George Stephanopoulos. He told "Good Morning America" on Sept 17, 2001:

"There are various efforts going on in public and behind the scenes by the Fed and other government officials to guard against a free-fall in the market, what is called the 'Plunge Protection Team.'

The Federal Reserve, big major banks, representatives of the New York Stock Exchange and the other exchanges have an informal agreement to come in and start to buy stock if there appears to be a problem. They acted more formally in 1998, during the Long Term Capital crisis, and

propped up the currency markets. And, they have plans in place if the markets start to fall.”

The PPT is authorized to use U.S. Treasury funds to rig markets in order to ‘maintain investor confidence’, keeping up the appearance that all is well. Manipulation is also effected by a private fraternity of big New York banks and investment houses known as the Counterparty Risk Management Group (CPRMG), which was set up to bail its members out of financial difficulty by colluding to influence markets, again with the blessings of the government and to the detriment of the small investors on the other side of these orchestrated trades. Market observers often see the large investment houses, Goldman Sachs for example, stepping into the futures markets and making huge purchases that lead the overall market to swing in a different direction. In other cases, banks that have had short-term liquidity problems manage to borrow large sums of money (\$12 billion in one example from several years ago) from anonymous lenders outside the normal channels banks use for their borrowing. I feel we would all prefer that our stock and commodities markets operate with transparency and fairness. Lately, more and more people have become disillusioned with investing in these markets, due to the large volatility generated in large part by the gambling, day-trader mentality that has become such a prominent force in driving pricing. We need the market to return to its original concept: that it allows individuals to buy a portion of a business that they believe will earn money over time by having a great product or service, not through speculation or manipulation.

Even if we feel that this level of manipulation is minor and of no consequence, we cannot ignore the way the Fed manipulates the entire economy through interest rates. The current housing bubble was initiated when the Fed pushed interest rates to very low levels, after the stock market collapse in 2000 significantly shrank the money supply. ‘Easy’ credit pumped the money supply back up and saved the market investments of the Fed’s member banks, but it also led to a rise in the cost of homes that exceeded the rise in wages needed to afford them. Now that the prices have collapsed, the economy has moved into the trough of the ‘business cycle’ once again. Setting a reasonable interest rate and letting that interest fund the government is much more efficient overall.

‘Too big to fail’ has to stop. At the very least, it is a license for risk taking, as bank officials know the government will step in to ensure the economy is not greatly impacted by the bank’s failure. Taxpayers should not be the backstop that prevents any bank’s poor decision making to bring down the entire financial system. In worse scenarios, banks create new products that no one understands (credit backed obligations, credit default swaps and derivatives all come to mind) and then become heavily involved in a nascent market that holds many new, nasty surprises. In some aspects, banks are already well on their way to being nationalized, as more and more are taken over by FDIC or give the government stock in return for bailout funds. If there is a problem with derivatives, the two largest banks in the country, JPM Chase and Citibank, will end up taken over by the government completely as they are the most heavily involved banks in this market. These two banks were also complicit in ‘cooking the books’ at Enron,

and paid \$300 million in fines to settle out of court. Think they stopped this fraudulent way of doing business after that slap on the wrist? Another problem with 'too big to fail' is the current bonus/compensation and golden parachute provisions that reward individual risk takers no matter the outcome of their work. This concept shows that the U.S. economy is not a 'free market', when mega-banks are guaranteed by the government. Even as we work our way through the bailout process, banks have continued to grow in size and reach. Bigger banks are 'asked' to take over smaller banks in trouble, while the government stands by to backstop the new, larger bank. This only delays the day when we must reconcile all the toxic assets and derivative bets that hide on bank balance sheets.

There is one other problem we must remedy before we can tackle 'too big to fail', however. When the U.S. became subject to World Trade Organization (WTO) regulations, one of those regulations could prevent us from making these huge banks return to their original niche markets. The regulation prohibits the nation from passing laws that limit the size of financial institutions. We must either get all nations that are part of the WTO to ratify a change in regulations, or we must be prepared to accept the consequences should a bank complain.

Clearly, though, we need to separate commercial and investment banking; otherwise we have a clear conflict of interest issue: traders who trade against their depositors in order to benefit their corporate shareholders. It also leads to fraud in valuing assets. This was the purpose behind the Glass-Steagall act, which Congress repealed in 1999. We saw real estate appraisers willing to return any value for a projected home sale in order to continue to do business with a financial institution that was processing many home mortgage refinancings. And we saw the securities insurers working closely with banks to craft derivatives and credit backed obligations that could be 'insurable', rather than waiting for the security to be presented and having the insurer deciding independently if it warranted taking the risk. The wolf is negotiating with the shepherd. If you have any type of conflict of interest, the results will be skewed. This is a symptom of the moral decline within the corporate world during recent decades, as greed has become more and more apparent in some industries at the expense of the common man. Let's restore concern for others as a guiding principle in business affairs. Please note the wise words of Warren Buffett: "The 5 most dangerous words in business may be: 'Everyone else is doing it'."

Part of the issue around derivatives is the very fact that most people do not understand its market. It operates in a very hidden manner; the trades are not easily examined by either the public or regulators. If we begin to tax derivatives, even just a small fraction of a percent per transaction, we could begin to bring them out into the open so that the transactions can be traced and regulated. If a side effect of this is to slow down 'day-trading', which is legalized gambling, then so much the better. Also, tax the foreign currency exchanges for the same reason, and to slow the looting of foreign national treasuries. Embrace the concept that we shift taxation away from productive activities that society requires, onto unproductive and speculative activities society often doesn't benefit from.

Some people feel we should return to a currency that is backed by something tangible, gold or silver for instance. We have enough experience with this method to see some of its pitfalls. We find it is too subject to price volatility and manipulation, and that means it isn't stable enough to lend any trustworthy 'worth' or 'value' to paper money or to be used as a yardstick to price goods. Too often in the past, metals have been subject to groups or individuals hoarding supply or trying to corner the market. There are many other uses for metals as well, that can impact supply and demand. There is a finite amount of metals, and this effectively limits the size of an economy. In the mid-1700s, the American colonies used a fiat money, Continentals. Because this wasn't backed by any tangible asset, the Colonial government printed Continentals as needed to fund their budget. This spending created services and infrastructure, jobs in other words, and so there was no inflation, and everyone who wanted work could find it. Benjamin Franklin traveled to England, and after spending many years there, was appalled at the sight of homeless beggars on every street corner. The economy was stagnant; jobs were in very limited supply and consequently paid very little. He was asked how the colonies managed to maintain such a robust economy, and he explained about the system of using Continentals to fund the creation of enough jobs for everyone. The English reacted by passing the Currency Act, which required that no other currency could be used in the colonies, and that the King's tax must be paid in gold. Because the colonies had a limited supply of gold, and that had to be managed to enable them to have the funds to meet the King's tax, very little gold was available for trade or wages. Suddenly America became like England, very few jobs, low wages, and lots of homeless and starving people. It was impossible to expand the economy because of the constraints of the limited supply of gold. We would suffer from similar constraints today, should we revert to a currency backed by gold. Using Greenbacks, the government could also spend 'new' money into the system to fund retirement, medical care, and construction of infrastructure. In Sweden and Denmark, interest free lending has been in existence for decades successfully. Since there is no competition and no profit motive, charges are assessed to cover costs only. It becomes far easier to repay a debt that does not continue to grow in size through compounding, so there are fewer defaults. Worried about inflation? Mandate that the mortgage payment be a set percentage of income, say 25%. Since the loan is interest free, the term would be much less than 30 years, and hundreds of thousands of dollars are freed up to be used for other purposes. And while we are looking at changing how our economy operates, we must end the practice of short sales. In this method of gambling in the market, an asset is theoretically borrowed and sold. When it comes time to return the asset to its owner, the speculator buys a replacement on the market. The speculation is that the price has gone down, so that the replacement can be purchased for less than the original was sold, the difference in price being the profit. There are many problems with this, not the least of which is that the more people that sell an item, the greater the supply and the lower the price. That makes short selling a self-fulfilling prophecy. Another problem is that short selling is not regulated in any

meaningful way, and there are proven examples that show that unscrupulous speculators get away with selling assets they haven't even borrowed yet. Under the current operating system, a trader is able to sell then buy quickly enough that this is possible. Also, the trader who borrows the stock is eligible to vote that share as if they are the owner of record. Because many brokers are loath to inform clients that the client's stocks are being used for short sales, the broker mails the proxy forms to both the owner and the borrower. Many investors do not vote their shares, but in the event that too many votes are received, the broker adjusts the vote tally before submitting it to the company. This whole concept opens too many avenues for market and business manipulation, and needs to stop.

Today the corporation rules supreme in our capitalist system. Following decades of operating with impunity, however, has given rise to a host of problems. At a minimum, corporations:

- lie to get contracts
- contribute huge amounts to political campaigns, usually to both parties so their bases are covered.
- file multiple lawsuits against the government, overwhelming the Attorney General's office, which then settles out of court for pennies on the dollar.
- lobby Congress for loopholes (and get them)
- in many cases, ignore the law with impunity [One study shows over 500,000 violations of clean water laws by corporations without any prosecutions]
- avoid tax. Walmart uses a tax-exempt real estate trust to own its land used for retail outlets, and by paying its rent to the trust, saves several million dollars a year in tax.
- use offshore entities to shelter profits from tax.

Typically we feel powerless to change or address these issues. Our material abundance lulls us into thinking these issues can't harm us. Yet, during WWII, the government limited interest rates, capped wages, corporate profits & prices, rationed essentials and raised taxes. The economy doubled while these measures were in place, and incomes rose 40%. Because the government spending in the U.S. focused on infrastructure, in particular building factories and developing technology, many new businesses and jobs were created. Adopting the Greenback as our currency would allow the government to:

- focus on development of infrastructure (roads, parks, hospitals, oil substitutes, public benefits, ecological living)
- generate programs that ensure everyone works who wants to work
- design government mandated forbearance and credits work-outs, limit new credit to limit consumption
- create a government pension plan that augments SSI, including mandatory contributions by workers and employers
- encourage research and development to design products that are easily upgraded, not just replaced

- restore progressive tax rates. When Warren Buffett has a lower tax rate than his own secretary, we have a problem. Offset the higher tax with credits that encourage development of new technologies or the purchase of government bonds
- cut the military budget
- cut farm subsidies that pay farmers for not farming
- cut all subsidies and tax breaks for oil companies. Exxon making 45 billion in profit in one year demonstrates subsidies are no longer necessary. Using subsidies, we reward oil companies for their lack of innovation, their inability to meet the needs of the planet
- stop using government borrowing/spending on old industries. It should focus on R&D and emerging industries that need a boost. If it's established, it should sustain itself or find a new way to do business
- fund sustainable, clean energy research and development. Get us off the petroleum economy

These are but a few ideas regarding how the government can lead us boldly into the new Millennium. Whether or not we adopt the Greenback, we should seriously consider taking a new approach towards corporations. We should set a high corporate tax rate, then offer rebates against that tax for:

- meeting environmental goals
- raising wages
- increasing pension funding
- insourcing rather than outsourcing

If there is persistent fraud, the government should dissolve the corporation. We should also allow citizens to sue companies for fraud.

Finally, in the words of Thomas Jefferson:

“If the American people ever allow private banks to control the issue of their currency, first by inflation, then by deflation, the banks and corporations which grow up around them will deprive the people of all property until their children wake up homeless on the continent their fathers conquered.”

Consumption/Materialism

If I were to ask you: “What is your most important value?” how would you answer? For those of us raised in the American culture during the second half of the twentieth century, the answer might well be ‘freedom’. We take a nationalistic pride in spreading our version of freedom around the world. We expect that everyone else wants to be like us. Because this value is so deeply engrained in our consciousness, we don’t notice the many ways in which we are not truly free. I might point to our limited access to varied points of view within the news media, to our prohibitions against many types of speech and assembly, or even to the ways in which religious intolerance limits our ability to act as we might wish. But

one of the most insidious ways in which we are *not* free, is in our relationship to material goods.

As World War II spurred the growth of manufacturing in the U.S., and brought this economy out of the post-Depression doldrums, the American Dream took hold. Not only did that mean home ownership topped most people's agendas, but filling that home with the latest and greatest 'stuff' reinforced the good feelings we had about our easy lifestyle. For the first time in history, we became a majority of the population no longer worried about where our next meal would come from. We had access to credit on a scale never before seen by man to fuel our purchasing sprees. The stereotype of the shopper, depressed by something that happened at work taking a side trip to the mall on the way home and spending their way back to a sunny disposition was, unfortunately, all too true. We talked about 'planned obsolescence', a plot we 'knew' had been hatched to make sure every item breaks just after the warranty has expired, forcing us to buy a new product. Television advertisers sold us products we didn't even know we needed; remember 'yellow waxy buildup'? We made sure our children had everything we didn't have during our own childhood, often in the misperception that toys and stuffed animals, color-coordinated outfits, or the latest electronics would make the child happy. We accept the notion that our material goods define who we are, and crave the status that results when our stuff is better than our neighbor's stuff.

In the process, we've become the 4% of the world's population that uses 30% of the world's resources, and contributes 25% of the CO₂ that is leading us towards climate change. Clearly, the rest of the world can't live as Americans do; it's impossible. And yet, 'Americans', or at least people who consume like Americans, are appearing all over the world. Many countries have a burgeoning upper class, hooked on buying fast food, the latest cars, electronics, and fashion and generating American-sized volumes of trash. China's consumption per person is still 1/10th that of an American, but it won't remain that way for long. And if you allow yourself permission to look at how those resources are extracted and shipped and refined into the goods we buy, you find tragedy and manipulation at every step of the way. Yes, even today, slavery exists. The UN reports over 30 million people work under conditions where they are unable to leave, they are given no pay for their work, they are fed starvation rations and regularly beaten, sometimes to death, all to grow and harvest the crops we eat, or to make the clothes we wear, or to quarry stone, minerals or ores needed to manufacture something we place in our home. And before you think 'not in my neighborhood', The U.S. State Department estimates that 17,000 slaves are brought into the U.S. every year. They work in fields, restaurants, hotels, and in the sex trade. They are in every state, in most cities, and probably not far from your home. It is part of our problem, as a society, that we are so focused on ourselves we fail to see what is going on around us, right under our noses in some cases.

We have also traded capitalism for debt peonage, which is another way of saying that the majority of Americans today don't 'own' much beyond massive loan payments. Maintaining a savings account and putting aside the money we will

need for planned future purchases isn't something that's in our budgets or our thoughts. We have been flooded with offers for new credit and larger credit lines, at least until the mortgage crisis short-circuited the lending process, and many of us used the expectation of another home mortgage refinance or an increased credit card spending limit to flesh out the income side of our monthly spending plan. The result is that we work for the banks, not ourselves, much as farmers did for hundreds of years in Europe and the early years of America.

Merriam-Webster defines 'greed' as "a selfish and excessive desire for more of something (as money) than is needed." Greed corrupts our thinking; we make choices that harm our neighbors and our own families in order to have more stuff. 'Money can't buy happiness' is a truism we all know, and yet we don't demonstrate our understanding of this axiom very well. There are many people in America who are seen as greedy by others around the world, and rightly so. It is hard to justify being paid millions of dollars each year for your ability to 'short the market' and drive the value of the investments of others down, especially of those who have retired and live on the income generated by their portfolio. We need to spin our paradigm around, rewarding those who cooperate and help others, who build harmony and work for justice, rather than those who compete and generate excess at the expense of others.

Our economy is so focused and dependent upon growth that when it fails to grow during a particular time period, economists call that trend 'negative growth'. They don't even have the vocabulary to acknowledge that the economy doesn't have to become bigger for us to be able to survive and live a rich, fulfilling life. But when you examine what decades of growth has brought us, you find that the percentage of people undergoing treatment for depression continues to rise, the average worker spends more time commuting to work and home each year, and today less than 50% of adults live in a household with a spouse. Is growth what we want?

Many people realize that what truly matters in life is relationship, not things. We need to understand that in our hearts, and to begin to harmonize our relationships with family, friends and co-workers. We need to 'show up' in authentic ways, to stop playing roles, to be ourselves. It's not about 'he who dies with the most toys wins', it's about meaningful dialog and moving towards ever-greater intimacy with people and with our planet. We are not separate. The new way of living involves demonstrating our understanding of this fact in our daily lifestyle. As we incorporate this point of view into our actions, we will be naturally drawn to improving our financial health by limiting our use of credit to fund our purchases. We will save for the future, pay down our debt, and relish the freedom that comes with not having lots of 'stuff' weighing us down, and lots of debt that keeps us stressed. Having our debt under control, or even eliminated, allows our energy to be given to others freely and with love, as it should be.

Today, our system measures progress using Gross Domestic Product, a figure that is calculated based on production of goods and services. As always, what you measure defines your goal and turns out to be what you get. If the Exxon Valdez spills oil along hundreds of miles of beaches and costs \$5 billion to clean up, that adds to GDP and is seen as a useful event. There is no consideration of

quality of life issues for nearby residents, the loss of jobs in the area or of environmental issues following the spill. Because we expect that GDP always needs to increase, we must always add more money to the system, which requires more debt. We must devise a better way of measuring of how our economy is evolving. It needs to include measurements of the work performed, especially by women, in our homes to care for ill family members and to raise children. It must turn our focus to the aspects of life that enhance our relationships and our sense of well-being and optimism. Bhutan has recently begun tracking the Gross National Happiness, an attempt to quantify the issues that impact our ability to achieve a more satisfying lifestyle. Specifically, the Bhutan government has determined that the four pillars of a happy society involve the economy, culture, the environment and good governance. It breaks these into nine domains: psychological well-being, ecology, health, education, culture, living standards, time use, community vitality and good governance. Under the domain of psychological well-being, for example, indicators include the frequencies of prayer and meditation and of feelings of selfishness, jealousy, calm, compassion, generosity and frustration as well as suicidal thoughts, and how much time a person spends with their family or at work. Let's see what we can devise to accomplish this in America.

The old adage says that every cloud has a silver lining. One of the linings of the credit crunch and resulting slowdown of retail sales in 2008/2009 has been the appearance of a new phenomena; the idea of 'good enough'. While sales of electronic goods, digital cameras, computers and TVs for example, were on the whole very sluggish, one particular new product sold very well. It was a small digital video camera. The developer of the product realized that people who shoot short snippets of video just want to be able to share odd, funny or amazing things that were happening in their life with friends and family, and thanks to YouTube, with the world. The new camera was light, pocket-sized, and had virtually no 'special features'. It was simply a point-and-shoot camera that took video of a quality adequate for viewing on computer screens, and that effortlessly transferred the video to any computer and onto the Internet. No bells and whistles, no special features, and a price that made it almost disposable, and it sold out in many stores. It was 'good enough'. Is it the right camera for everyone? No, of course not. Nor is it the right camera for every situation. But how many times have you purchased a product and used it for just one purpose, ignoring all the various and sundry special options or effects that it provided? I have two blenders in my kitchen, one acquired years ago that has 23 speeds and one I received as a longevity award at work that is a 'mini-blender' and has two speeds. Guess which one I use. And guess which one is cheaper. A big part of our shift in purchasing can be in this direction. Manufacturers can offer products that are just your simple, basic tool. It will save money and resources, and while they may still make the higher end, more complicated versions, there would be a lot less unused resources gathering dust in American homes.

Finally, let's return to the mindset our Grandparents had, one that focuses on not spending more than we have, not relying on credit cards to buy groceries because we've spent every bit of cash on material goods that will soon be

gathering dust in our closets, in our garage, or in a landfill somewhere just outside of our neighborhood. We will ultimately spend much less for the things we do buy this way, and we won't be enriching banks who have given us a charge account, at no risk to themselves, and yet allow us the privilege of paying interest at 18% (or more!).

Health Care

As I write this book, President Obama is deep in the process of trying to get health care reform passed by Congress. It appears at this time that there will be neither a single payer plan nor a public option. Hopefully, if the monetary reforms already suggested in this book come to pass, we as a nation will see our way clear to help everyone have access to the health care our marvelous science has made possible. But whether that is the case or not, there are still a few paths forward that can radically change our health care experience, for the better. When people are asked about how they would like to solve certain issues in the public domain, they often respond by voicing a trust that people smarter than themselves will do some research and find the best solution. This idea is frequently demonstrated, and research and development costs are quite normal expenses in many businesses. Colleges and universities pursue the types of research that often, in the beginning, have no apparent commercial value. The government funds research in areas that may have commercial potential, but usually have some military purpose or focus on pure science. It does appear as though mankind has the ability to gain knowledge, the intelligence and the creativity to solve most problems. But what is required is a drive to solve a particular issue. Whether that drive comes in the form of the need of a business for a new product or by way of a governmental mandate, someone has defined a goal and it becomes the job of the researcher to meet that goal. For the truly great missions in life, a respected leader clearly defines the goal and provides the energy for its pursuit; President Kennedy's call to land an man on the Moon and return him safely to Earth being a fantastic example. What seems to be missing in the health care debate as it has progressed in 2009, is any consensus about the goal, the problem we are trying to solve. The argument has centered on the financing of whatever plan is approved; how much will individuals have to pay, will taxes be needed, will there be fines for people opting out of mandatory coverage, etc. My point is we first need to decide as a society; do we value universal health care? Do we want everyone to be covered? There are significant advantages to everyone, including people who may be in our country illegally, having access to doctors. Communicable diseases, especially fatal ones, can be stopped quickly with early intervention. If someone doesn't have adequate insurance and waits until they are deathly ill to visit a hospital emergency room, society now faces a bigger expense, a potential death, and a greater chance that other people will be exposed to the disease. In the U.S. today, 22,000 people die each year from treatable illness solely because they lack the medical insurance that would have allowed them to see a doctor.

Still, medicine today is not cheap. On the other hand, if America is all about freedom, where's the freedom in one insurance plan for everyone? If I am well off, should I be forced to accept a policy that offers the minimum of coverage? And over half of the cost of medical care in this country occurs during the last 6 months of life. As we try to find a way through cutting costs during those final months, we walk a very fine line between ensuring someone has a decent, painless experience with the highest quality of life possible, and yet not being guilty of euthanasia.

If we focus the debate on deciding what our goal is, universal care or not, then the details can be worked out by people who are well versed in finance.

Achieving the goal can include items such as cutting out waste, duplication of services, fraud and lowering the cost of managing insurance plans, an item that is currently over 30% of total health care costs (among private insurers). There are many universal health care plans around the world; we certainly don't lack role models or ideas. We do lack a vision, an agreed-upon goal. That is step one to solving the dilemma.

But in keeping with the theme of this book, finding a paradigm shift that can move us into the new Millennium with a great society, there are other aspects of health care that deserve attention. For instance, one issue that is getting very little attention yet holds the prospect for profound change in medicine is the 'problem' of the placebo effect. We have known about the placebo effect for decades. Often a sugar pill, nothing more than milk powder or sugar, will be as effective in treating disease as any drug. Homeopathy, a system of medicine that uses infinitesimal amounts of natural herbs and compounds, is believed by many to be effective also. Science has yet to prove or disprove, to everyone's satisfaction, whether or not homeopathy works. A doctor who noted that a nurse, caring for a wounded soldier, had run out of morphine for pain discovered the placebo effect. She told the soldier she was giving him a shot of morphine when all she had was a saline solution, yet the soldier's pain went away.

The issue that has arisen recently is that the placebo effect seems to be growing in potency. A large mining of data from past drug studies is quietly underway, looking into the issue. In recent years, most large pharmaceutical companies have begun doing their drug testing outside the U.S., because the placebo effect is not growing as quickly there. The typical protocol for testing a drug's effectiveness calls for three types of patients: one group, the control group, receives no drugs at all, a second group gets the placebo, and the third group gets the drug being tested. In America over the last 20 years, the effectiveness of the placebo appears to have doubled. Studies that have been done, and not widely publicized, show that drugs that proved more effective than placebos 20 years ago now are less effective. It's not that the drug has changed; the effectiveness of the placebo has improved. How can that be? The placebo has no therapeutic effects!

When you were ill as a child, did your Mother say to you, "You're sick, we have to go to the doctor"? She is building the expectation in your subconscious that going to the doctor is necessary to accomplish the healing process. But is she telling you the medicine is going to heal you? No, she only says healing requires going

to the doctor. Many today believe that subconscious beliefs drive much of what happens to us, including healing ourselves when we are sick. Is this the key to the placebo effect? It could be that research into the placebo effect will uncover a connection between our beliefs about sickness and healing and the healing itself. Getting to the root of the placebo effect will revolutionize the drug industry, potentially limiting it or ending it altogether. As we awaken to the possibility of using our mind to heal ourselves, we can alter health care forever.

Another shift that is just beginning to be visible, utilizes the 'good enough' concept for medical care. Kaiser Permanente, one of the largest Health Maintenance Organizations (HMO) is preparing to roll out 'mini clinics' in 2010. A mini clinic consists of a small suite of offices, typically located in a neighborhood strip mall, that is staffed by two doctors, a few nurses and some number of support staff. This clinic can handle about 80% of the patients that visit, and can refer the other 20% to the nearest hospital. The clinic doesn't have much in the way of typical hospital hardware, has no pharmacy or lab, but it does have a high-definition conferencing system and broadband access to the Internet. This allows the doctors to consult with specialists in Kaiser facilities anywhere. Also, many doctors today find themselves utilizing emails and text messages to maintain contact with their patients, and to be available to their patients when it is difficult for their patients to get to the office or to find space in an already-full appointment calendar.

Also in the testing phase are attachments that fit onto cell phones, such as a microscope or vital signs monitor. In many developing parts of the world, doctors are not as available to patients because the infrastructure has not yet been built; there are just fewer doctors and hospitals, and the distances one must travel for medical care exceed the patients' ability to gain medical attention. Putting the ideas of automatic monitoring, sending information over the Internet (including the use of high def interviews) and establishment of simpler doctor's offices focusing on providing medical services that are 'good enough', we begin to create a medical system that puts a new frame around the concept of 'house call'. The modern medical system may rely a lot less on patient visits to established facilities that encompass hundreds of millions of dollars worth of state-of-the-art equipment and more on real-time, constant monitoring of various vital signs, including software that can spot a problem and direct the patient's own monitoring equipment to make certain tests prior to a doctor being notified the problem exists. Paramedics may respond with more specialized gear that allows the doctor to request certain tests or to view the patient in a certain way, and the patient often may be 'treated and released' where they are, rather than be transported to the nearest Emergency Room at considerably more expense. We need to be open to ideas that transition our medical system into a new paradigm that meets the goals we set for it: great, state-of-the-art care at an affordable price for everyone, regardless of economic status or limitations, and without bankrupting the country.

True Cost Pricing

Other disturbing trends have recently surfaced. One is the now-common practice of subsidies. Around the world, farmers are given money by their government, usually to provide incentive for the farmers to grow crops that otherwise would be unprofitable. If tobacco can be grown in Brazil and imported to America for less than it would cost to grow here, then farmers here might be given money by the government so that the difference in price is negligible and farmers will continue to grow tobacco locally. In America, farmers have also been given money *not* to grow crops. As there are a billion people subject to starvation today, the idea that anyone is paid *to not grow food* is astonishing. Recent subsidies also have gone to farmers raising crops for biofuels, corn in particular. Again, that we are paying someone to raise a food crop and then pouring that crop into auto gas tanks defies logic. Biofuels are but a stepping-stone towards fuels that are not petroleum based, but this step is only needed because we refuse to acknowledge that burning oil for transportation must stop. Studies have shown that the corn diverted into biofuel production has raised the cost of corn around the world, and led to increased starvation. It seems unconscionable that people are literally dying around the world so that we can put gas in our cars. Part of the true cost model is ending subsidies, letting the farmer raise crops that are profitable, and importing that which can be grown cheaper somewhere else. Many of the products we buy carry a disposal cost that is not collected at the time the product is purchased. Many people make their living combing through landfills in developing countries, salvaging precious (and often toxic) metals from discarded electronics equipment like monitors and computer motherboards. Why did this trash end up outside the country that generated it? Because we refuse to deal with our own trash. It is cheaper to haul the trash into some other country than to cope with regulations designed to protect our planet. A deposit should be collected at the point when the product is sold, sufficient to cover the cost of recycling. We already do this for cans and bottles, and other products as well. The life cycle of every product is known, and the true cost of making and disposing the product needs to be charged at time of sale. Note what economist Lester Brown, author of *'Plan B 3.0'* says:

“Socialism collapsed because it didn't allow the market to tell the economic truth. Capitalism may collapse because it fails to tell the environmental truth, hiding costs 'off the books'.”

But that is easier said than done. Let's look at how true cost pricing would impact an industry as vital to our lifestyle as power generation. Surprisingly, the waste produced by coal-fired electricity generating plants is actually more radioactive than that generated by their nuclear counterparts. “In fact, the fly ash emitted by a power plant—a by-product from burning coal for electricity—carries into the surrounding environment 100 times more radiation than a nuclear power plant producing the same amount of energy” [Scientific American, Dec. 13, 2007]. Fly ash contains radioactive uranium and thorium, and other toxic elements such as mercury, lead, arsenic and chromium. All these elements are found in coal naturally, but the burning of the coal concentrates them far beyond what is

natural. These elements, including the uranium, sometimes leach into the soil and water surrounding a coal plant, affecting cropland and, in turn, food. More than 130 million tons of coal ash are generated each year. It is stored either dry in landfill sites or underneath golf courses, or in liquid, aboveground storage ponds, many of which are unlined and allow seepage into nearby water sources. Some of it is even recycled into carpets, bowling balls or bathroom sinks. You may have some inside your home right now. The coal industry says it is 'safe as dirt', yet how can that be true? Coal ash is unregulated by the EPA, having never been classified as a hazardous material. Some states have regulations; a few might even be effective. The result is unregulated dumping of hazardous, toxic and radioactive material may be happening in your neighborhood, and the government looks the other way in order to keep the price of coal-generated electricity low. It is impossible to place a dollar amount on the subsequent pollution, health costs, damage to ecosystems and their flora and fauna, or on the clean-up costs of the waste that already exists. But this is much more clear: it is *imperative* that the cost of properly addressing this hazardous waste should be included in the cost of power generated using this method. And yes, it is very difficult to assign a value in terms of dollars and cents, for human life and environmental safety. How valuable is a clean, drinkable water supply? How valuable is it to be able to play golf on a course that does not have toxic and radioactive materials lying 3 inches under your ball? What is the cost of losing a salmon run, when the toxic materials kill off all life in a nearby river? What is the cost when entire ecosystems are destroyed following the installation of a dam for 'flood control' that really just allows golf courses to be irrigated? Over half the rivers in the U.S. that used to reach the ocean, don't today, including the mighty Colorado River. What is the cost of that? One aspect is clear, and becoming more clear every day: we will eventually pay the true and complete cost of everything we produce, and that cost will be higher the longer we wait to pay. The only way we will avoid this settling of accounts, is if we are extinct. How's that for a 'loss of biodiversity'?

Globalization

"Any economy that's beyond the community level, where there's immediate and face-to-face feedback on what you do, is going to cause problems. How can I still be a citizen yet be in an international economy? I can't even know what injustice or ecological destruction the purchase of my computer has had. I had no contact with the women in Thailand who've gotten cancer from putting hard drives together. Even if my intent is 'good', I can have only the slightest understanding of the impacts of my consumption. It is impossible to understand all the social and environmental impacts of a computer or car made in a dozen different countries. That's why consumers and industry are so enamored with the idea of certifying products so that the consumer can just walk into the store and buy the computer with a green star on the box. No thinking, no feeling, just confident consuming."

George Draffan

Free trade agreements run over 1,000 pages and are less about free trade, which could be summarized in but a few pages, and more about providing value and profit to the campaign contributors of the politicians who must ratify the agreement. For example, the U.S. places a 54¢ per gallon tariff on sugarcane ethanol (7 or 8 times more effective when used in transportation than the corn ethanol produced in the U.S.) from (democratic, by the way) Brazil, while only placing a 1.25¢ per gallon tariff on oil from (a dictatorship that funds terrorism) Saudi Arabia. That's hardly 'free trade', whether you agree with the politics of it or not. When developing countries must open their borders and accept products priced with the benefit of government subsidies, the poor of the developing country bear the real burden. They sink deeper into poverty as their livelihoods are taken away. A prime example of this tactic is corn. Corn farmers in the U.S. benefit from a government subsidy that guarantees them a particular price for their corn, regardless of what they sell it for. Thus, they can sell the corn in Mexico for less than locally grown corn, driving the poor Mexican farmer out of business, while the U.S. taxpayer picks up the bill for the difference between the price of corn in Mexico and the 'fair' price. In another example, U.S. government subsidies to 25,000 cotton farmers totaling more than \$3 billion per year allow them to export cotton to Africa and put 10 million African farmers out of work. For decades, countries in Latin America enjoyed good rates of economic growth and development. But since the 1970s, when they were forced by political and economic conditions to open their borders to free trade, these economies have shown either zero growth or contraction. The resulting despair and unemployment results in a loss of hope and dignity for the Latin American people. This is one legacy of free trade.

Poor countries often have to borrow under short-term conditions and with hard currencies. This makes them vulnerable to situations in which the currencies exchange rate fluctuates, driving the interest due much higher than planned as the underlying currency falls in value. It is often at this low point of the business cycle, when interest rates are high, money is tight, and unemployment is growing ever higher, that countries fall victim to the lure of 'free trade'. If free trade means accepting environmental degradation in return for jobs on assembly lines or manufacturing plants that employ some of the hungry citizens, can a government turn down this agreement? Can the beleaguered government say 'no' to the conditions set down as loan qualification by the World Bank or the International Monetary Fund, demanding that resources and utilities be sold to multinational corporations at fire sale prices? The loan requirements, recently and commonly called the 'Washington Consensus', direct the government to cut social services even as the number of poor people needing services rises, to enable onerous loan repayment schedules. The requirements enshrine the Western corporation as the new Master, and the poor developing country its slave. These policies are widely seen as originating in America, especially when it is American corporations who benefit so much from the resulting fallout of the regulations of the Washington Consensus. Most people around the world see this economic

domination as the true core value America wishes to export, not freedom, democracy or justice.

When governments complain, they are rebuked and told its their own fault, that without having to ask for help there would be no need to change, and that its only a matter of time until they will be forced to allow the multinationals inside their country anyway. Even after outsourcing jobs to these developing countries, the corporations continue to prowl for other countries with fewer regulations or lower wages, that are willing to be used. Mexico was certainly surprised to look up one day and find the jobs that had been plentiful along the border with the U.S. were being re-outsourced to Viet Nam.

The key problem with free trade, from the point of view of the average person in a developed country like America, is that its greatest benefit arises from cheap labor. In fact, over the last 30 years, wages for non-skilled labor in America, in inflation-adjusted dollars, have fallen 30%. The goal of free trade is to make wages equal around the world, at levels that are adequate in developing countries. This means that wages in America have nowhere to go but down. Even for those who work at so-called white-collar jobs, wages are under downward pressure. In the same 30-year period, an entire career for many, the average wage of American workers increased just \$800. When Americans lose their jobs to outsourcing, they are told they can always find other work. Often this is not the case. If their incomes decline, they are told they can borrow more money. The focus of corporations on safeguarding their profits using free trade agreements prevents governments from protecting the people from these harsh effects. Profits are important, but they shouldn't trump the needs of people and society. We can set limits so that companies profit, but can't get greedy. Limiting the highest wage to 20 times the lowest wage is one example of how this might look.

Many, if not most or even all, of the jobs outside America that provide such low wages, also ignore worker safety. There is no concern for worker's health, either in the form if any kind of medical insurance, or by ensuring a safe working environment. Stories abound of people contracting cancer, lung diseases and many other preventable illnesses within months or years of taking up a new job, because basic safety precautions were neither taught nor provided. This is part of the reason their labor is so cheap, compared to America, with its many regulations and protections.

This highlights another key reason corporations love free trade, the fact that there are always countries that have fewer regulations than America. Many financial institutions are based in the Cayman Islands for example, because banking regulations there are extremely lax. When U.S. companies first began to outsource manufacturing to Mexico, many factories sprung up along the U.S.-Mexico border, and U.S. cities just inside the border began to have issues with pollution. It became apparent that Mexico did not have the strict environmental protections that corporations faced in America; thus outsourcing was saving them not only labor costs, but also the expense of preventing pollution. Many countries also lack strict worker safety laws, like we now have in the U.S. Child labor is also rarely prohibited. It is hard for Americans to envision situations where 8-

year-old children work in mines, dragging buckets of rock and ore through passageways not a yard tall during 12-hour-a-day shifts, yet this happens as corporations look to maximize profits by limiting payroll expenses. Demanding that companies meet the stricter standard, between laws in their home country and in their host country, might be a start to alleviating this issue and leveling the playing field. Turning a blind eye to how the cheap goods are made that we enjoy purchasing, enables the abuse of workers around the world to continue.

We must also insist that our government use global agreements, such as the one currently being negotiated to replace the Kyoto Protocol, to set environmental regulations that are the same the world over. Making everyone use the same rulebook brings us closer to having trade that is not only free, but also just.

The large pharmaceutical companies have the opposite problem, however, and it is the protection provided them in free trade agreements that add to the complexity of the negotiations. The drug companies argue that they be allowed to control the use of their formulas. In some cases, they even control certain genes, limiting research that can take place and thus limiting potential cures from which our global society would benefit. Generic medicines have to be allowed outside the U.S. In so many countries around the world, brand name medications can cost a year's pay or more, for one round of treatment. Hundreds of thousands, if not millions, of people die each year because they can't afford an imported, brand name drug when a generic that could be manufactured locally, can't be made due to patent rules or exorbitant licensing fees. This is morally reprehensible; especially since the drug's R&D costs are recaptured by the sales that take place within the U.S. Use prizes to reward drug inventors, not patents, and make all drugs available worldwide. Adjust the size of the prize according to the number of people that are expected to benefit from the work of developing the drug and the costs that were involved for its creation.

Capitalism is based on competition. Competition puts everything into an antagonistic stance; thinking vs. emotion, us vs. them, Man vs. Nature. It ignores that we are all embedded in the same enclosed planetary environment, that like the Yin/Yang symbol, these opposites are part of the same whole but represent different parts. At particular times, thinking may be more appropriate than feeling. This doesn't make feeling wrong, nor does it mean that thinking will always be our best approach to a situation. We must get past the 'vs.' mentality and begin respecting each other and cooperating with all life and all things. We must see that there is no real separation between 'other' and us. How we see ourselves defines our role. If we see ourselves as separate, then we see the other as exploitable and we can destroy it. If we see ourselves as entitled, then we take. If we see ourselves as consumers, then we consume. We see where these roles have brought us, to the brink of calamity. Let's redefine our role and choose a sustainable path forward.

As the goals of capitalist American corporations take precedence over the needs of the local citizens and Nature itself, the environmental degradation escalates. In just one of thousands of examples, look at what has happened in the Pantanal Nature Reserve in Brazil. One great idea exported by America is that of creating National Parks. Yet even a decade ago, this park in Brazil was suffering due to

globalization. Soy farmers at the top of its watershed, growing crops that would be used to raise cattle to feed America's hunger for beef, were using pesticides and fertilizers and the runoff was poisoning plants and animals in the park. To get the soy to market, the government embarked on projects to build roads through the jungles, and to dredge and straighten rivers, thereby destroying parts of the ecosystem. Rivers inside the park were also being dredged for gold, and a natural gas pipeline was constructed through the park to transport the gas to Sao Paulo from Bolivia.

We should not have a goal of preventing hard work from being rewarded. But there are many ways in which our lives are enriched and meaningful, most of which do not rest upon monetary rewards. Studies repeatedly show that job satisfaction is driven by many factors such as recognition, growth, responsibility, and relationship, with pay far down the list of motivating factors. We must recognize our common needs, our shared values, and devise a lifestyle that meets those needs. Do children feel free and secure, able to explore the world and its wonders? Are parents available and supported in ways that allow them to nurture their children? Do we feel free to make big choices, to live large and self-directed lives, regardless of where our talents lie or how much income we have? A society as rich as ours should be able to provide the support each individual needs to make his or her unique contribution to the planet. Today we focus on the military and on big business. Instead we need to focus on people. We need to enable families to gather around the supper table, to share their experiences and their love for each other. We need to provide choices that support creative people, who might craft a great painting as easily as another designs a new drug. We need to provide a living wage for all who are willing to work. Let's empower individuals with the right to contribute to society. This provides dignity and hope, and leads to our brighter future.

Challenge: Politics

How can we have a discussion about issues that affect us all in such profound ways? Democracy as it is practiced in America today is the result of the evolution of our culture. The politicians find it difficult to set limits, either on government spending or on corporate behavior. The loss of 'American Exceptionalism' is a subject about which we cannot speak. Most influential commentators are in denial about how American policies are impacting the global economic and environmental situation, and only a few point out that America's international influence is waning. No Presidential candidate can make a public appearance without an American flag lapel pin, interesting partly because they don't wear pins that espouse their religious faith. Are they placing more importance on nationalism than spirituality? We must develop a national vision that leads to a more fulfilling future on the other side of today's challenges. We must rethink our approaches to selecting and operating our government. We must be willing to allow, without knee-jerk rants and marginalizing comments, a frank discussion about how we can best interact with the rest of the world's citizens.

End War

Jim had a smile that said, "Gotcha!" and a laugh, low and quiet, that said, "It took you long enough to figure it out!" He'd been back from Viet Nam more than 10 years when we met. While I fancied myself liberal and educated about peace and war and all, I knew nothing. I'd no clue what horrors he had seen, what memories kept him from sleeping more than minutes at a time.

I only knew that he was scarred by his time overseas, forever marked with sadness and mistrust of others. When he was crossed, real or imagined, it was immediately clear that he was capable of whatever measures were required to end the problem. Including death, if that were necessary.

That frightened me, a soft liberal who managed to evade the trauma of SE Asia by being born late enough to avoid the draft that had snared my friend. I made sure, after only a few demonstrations of the depth his anger could reach, to avoid making him angry with me.

I thought we had learned our lesson, back then. Movies, like "*4th of July*", tried to clue in the clueless about what life was like inside the heads of some vets. But we were so totally ignorant of their plight, so insensitive, that many of the most damaged became the invisible homeless in our town. Unable to cope, unable to fit back into society after being driven to such extremes during combat, many found solace with drugs, alcohol, or a gun barrel in their mouth. I thought we would never put our young through that kind of hell again. I was wrong.

Why didn't we learn that invasion, the toppling of other governments, the insistence that our way of life be universal, would destroy our own society? Why didn't we learn that we must live in peace with other religions, other races and other ways of seeing the world? Why did we turn our backs on our innate compassion? Why do we, especially now, deny our own professed beliefs of equality and fairness and opportunity? Put another way, what gives us the right to dictate how others must live? We must remember that one man's terrorism is

another man's patriotism. Why do we let our future, our young generation, be scarred and abused by war thousands of miles away? What can possibly be right about that?

What is happening today? We are beginning to leave Iraq, without the clear-cut 'victory' we were told to expect nearly 7 years ago in the run up to the war. Many of the troops that are leaving, however, are being transferred to Afghanistan. Experts from all branches of the military state that the U.S. is unable to fight a third conflict of any significant magnitude at the same time as these two, despite a large segment of the ground troops being reserve and not regular army personnel. We entered Afghanistan within weeks of the September 11th attacks in 2001, searching for Al-Qaeda. Rather quickly, though, our attention became focused on rooting out the Taliban. The Taliban is stronger today than at any time since our operations began there. This stronger Taliban has also begun to scare people into thinking they may rise to power and take over Pakistan, thereby controlling a nuclear stockpile. This scary scenario is the result of our policy of making war in Afghanistan. We have driven both Al-Qaeda and the Taliban out of some areas of Afghanistan and into Pakistan, in addition to fueling the propaganda campaign that has led to the increases in funding the Taliban has enjoyed in recent years. We also shouldn't forget that Afghanistan has shouldered Burma aside in the opium export rankings. Ten years ago, Burma exported 55% of the total opium production in the world. Today, Afghanistan has risen not only to number 1 in the opium export business, but is dominating this business, exporting over 80% of all opium. The Taliban uses this export business as their primary source of income. Addicts in America, because of the continued criminalization of drug addiction, are funding the Taliban. If the U.S. were to decriminalize drugs, ensuring that addicts were able to get treatment, reduce the theft necessary to support a drug habit and eliminating the profit and violence inherent in drug smuggling, we would also be striking a huge blow against the Taliban without having to invade another country.

Also, 15% our troops are returning home with traumatic injuries to their brains. Referred to as brain trauma injury (BTI), this is the result of the increased personal protection, the armor on the vehicles and the body armor soldiers wear today, that protects them from much of the damage that would have killed them in blasts in previous conflicts. Also, the increased speed with which soldiers receive medical attention is helping many survive what would have been fatal injuries just a few years ago. BTI occurs when the shock wave from a blast enters the soldier's skull, through the eye sockets, sinuses and spinal column, and injures the brain by separating its cells and its connections. It is just beginning to be recognized, though soldiers have been suffering its aftereffects for years. Leaving a permanent deficit in function, many veterans find it difficult to remember simple tasks. They are often discharged and sent back home, leaving their family to care for them without hope of eventual recovery. To be expected, we are told, because 'war is hell'. Those of us, who remain home, tucking our children into safe beds at night, haven't a clue what our young men and women endure while overseas. We don't recognize the terror of hearing a loud noise awaken one from sleep, or the horror of seeing the bodily remains of a child killed

by an errant bomb. Stories abound in the media of the inhuman way some soldiers carry out their orders, to the shock of their comrades. The inner struggle between the soldier's morals and the soldier's orders can destroy a young person's conscience and lead to anti-social behavior upon their return to the U.S. Exposure to constant violence can remove a soldier's inhibitions and lead to violence without cause or reason at inappropriate times. Will we at least treat these victims better than we treated returning Viet Nam vets 40 years ago? If you believe the statistics (and horror stories) about the military medical system, you don't see much hope of that happening, either.

Is this recent history, eerily reminiscent of the Viet Nam debacle, just a replay? Or does it tell us something more about the nature of today's world? Is it just a harbinger of a new reality that Americans must come to grips with, one where America, while still the strongest kid on the block, can no longer play at being the town's sheriff? Is it just another blow to our national pride, to be shrugged off and forgotten, like the returning vets with medical and psychological problems? On an even deeper level, what is the lesson we should be learning from these events? Throughout history, war has been waged either to capture resources or eliminate opposition, people who are demonized and killed for being members of a different race or religious sect. Even in wars that have resulted in the near extinction of a particular race or religion, though, the conquering military has proven to be unable to survive long itself.

The reason for this is the inherent impossibility of ever eliminating the last opponent. For every person killed, another enemy is made, usually bent on revenge. Often disguised, hidden or just remaining silent, this new enemy waits for an appropriate moment to strike back. We can never find them all. Even after more than 55 years of struggle to secure the homeland, Israel is still subject to the lone suicide bomber. This moment to strike eventually comes to everyone, and the enemies made during wars of aggression can just as easily be within as without. Notice the debate ongoing in the U.S. about torture. While on the surface, one side claims that torture is both successful in generating intelligence to prevent U.S. casualties and necessary to maintain national security and the other side claims that no useful information is gained by these methods and therefore no safety is gained, underneath the debate lies a fundamental issue that no one openly debates. The knowledge that our nation has abandoned the 'high road', the ethical and moral high ground that clearly advocates for fair, just and humane treatment of others, to expedite an uncertain result, more security, chafes at some of the very people charged with enforcing these questionable policies. The seeds are sown for the breakdown of the procedures, for ineffectual prosecution of the directives, at the hands of individuals who disagree with the orders. In some cases it may be blatant, in others so subtle that even the person with moral doubts doesn't see how they are compromising the outcome because of their own bias.

This concern that America has abandoned its own core founding principles is one of the fundamental reasons some citizens oppose war. We believe our religious and moral teachings that say killing is wrong. We look around the world and see poverty and injustice in every country, including our own. We sense that this

result is not inevitable, that there can be an American society and a world culture founded on the principles of justice and equality, and even love, where all are uplifted and able to pursue life and grow our collective consciousness. We understand that you cannot legislate, nor can you buy, peace and happiness. These attributes arise from within our hearts, as our needs are met and our relationship with the universe is brought into balance. Every person on Earth wants these same results from their struggle with life. It is possible to reach this goal by recognizing our fundamental core of issues and needs, and structuring society to provide for those needs. Often we only need to know that something is possible, to begin to fashion that future.

In the first years of this Millennium, the U.S. has adopted a policy of 'projected power'. This thinly disguised intimidation tactic has resulted in American military personnel being present in over half the countries of the world. President G.W. Bush has used the concept of 'projected power', placing U.S. military presence every possible location, so that none may easily forget who is the most powerful nation today. He insists that it is done with good intentions, in essence telling the world "You can trust us", but many countries fail to view it the same way. They only see aggressive actions without provocation, and fear escalating violence, actions that are outside the rule of law we claim to honor. The 2002 National Security Strategy document, in which this policy of intimidating other nations with a display of U.S. might was detailed, went on to state,

"We will take the actions necessary to ensure that our efforts to meet our global security commitments and protect Americans are not impaired by the potential for investigations, inquiry, or prosecution by the International Criminal Court, whose jurisdiction does not extend to Americans and which we do not accept."

It is easy to see why we are feared around the world, we proudly declare that we reject any attempts to limit our unilateral actions, or to enforce international law. New bases are being opened each year, currently with the goal of encircling our most likely opponent in coming decades, China. The opening of the various entities that comprised the Soviet Union has been fertile ground for American expansion. That the concept of projected power appears to violate international agreements and alarms long-time allies seems to bother few politicians from either American party; Congress continues to grant the President a blank check for prosecuting this policy. When anyone does question it, they are marginalized, and called cowardly. The U.S. continues to use cluster bombs, in direct violation of the Geneva Convention prohibition against attacks that are indiscriminate. Most Americans believe that the U.S. abides by the provisions contained in the Geneva Convention, in error. The definition of a war crime includes "the wanton destruction of cities, towns and villages, and any devastation not justified by military, or civilian necessity". A cluster bomb contains 202 bomblets that are dispersed over an area 100 yards by 50 yards, without the ability to control their final destination. Each bomblet is the size of a soda can, the steel walls of which are scored to break into 300 preformed fragments upon detonation creating shrapnel capable of injuring people 500 feet away. Upon detonation, the charge fires downward at over 2500 feet per second and has the ability to penetrate 5

inches of armor and start fires in combustible materials. Even worse, the official 'dud rate', meaning the number of bomblets that fail to explode upon initial deployment, is 5 – 7%. Unofficially it may be as high as 20%. In either case, each cluster bomb leaves behind 'surprise packages' that are found later by people, and in particular children, who set them off by accident. How is a cluster bomb anything other than 'indiscriminate'? How is the use of cluster bombs, already denounced by many international organizations such as Human Rights Watch, not a war crime? Despite this, no American is allowed to question why other nations might hate the U.S. Dissent is stifled and ignored. Pride in being American is the only acceptable emotion the citizens are allowed.

Another consequence of this growth in our presence overseas arises from the fact that we bring with us our expectation that everyone in the world wants to be American. In countries that have never known democracy or a free market economy, we negotiate leases that allow us to maximize the benefit of our experience with these principles. For example, we pressure governments to adopt democracy. These governments don't know anything about the mechanics of holding fair and honest elections and peaceful transitions of power, and also don't have the infrastructure that allows campaigning in the same way we campaign here in America. We assume these other countries will begin to allow free speech and discussion of the nation's issues, and we are usually wrong in that assumption. Rather than working to build infrastructure (roads, electricity, bridges, for example) and creating programs to feed, house and educate the local population in Afghanistan, empowering them and allowing them to decide what they want themselves, we destroy infrastructure because it is sometimes used by the Taliban and enforce a democracy that the people don't understand, can't benefit from, and could not care less about. We are blind to the fact that with this very act of ignoring the issues that matter to the average Afghani citizen, we feed the Taliban the anger and frustration and desire for revenge that it needs to survive. Notice how China has used negotiation and trade in recent years to win over many new allies, including allies of the U.S. Their influence grows with every new trade deal.

How does the Taliban survive? How do they entice their own young generation to strap on bombs and blow themselves up? Or to stone women to death for the crime of attending school? They are successful because the young look around and see nothing but unemployment, starvation, a lack schools, and relatives that have been killed or maimed by an invading army. We need to recognize, to be aware, of what we are creating when we ignore these children. Often, it only takes two meals a day and a change of clothes to enlist a teenager into the local gang, and then the ideology can be espoused non-stop. It is unlikely that the Taliban alternative would stand a chance against an influx of resources, jobs and education, no matter what country or religion was the source.

This is the core reason war is not successful. It doesn't try to address the problems that exist worldwide from a win-win, inclusive perspective. Instead, it divides us into sides and pits those sides against one another in deadly confrontations. America's history is a story of expanding empire and destroying all opposition. The winners always get to write the history books, so the facts of

imperialist expansion pushing the indigenous people aside is usually glossed over, if mentioned at all.

The world's population is expected to grow from its current (nearly) 7 billion to over 9 billion by 2050. Most of that growth will occur in countries that are developing, as parents try to ensure enough hands to help with gathering food, and child mortality exacts a heavy price. This increased pressure on developing governments to provide food, water, shelter, health care and education fosters instability, and creates conditions that allow terrorism to flourish. If we are concerned about our own security, we need look no further than here.

Population growth brings a host of problems along with it. More people means more demand for food, power and resources. Providing for these needs requires education, machinery, power (and that currently requires petroleum), all of which drive up the cost of basic necessities. Some farmers shift food to the production of biofuels, which raises the price of food and caps the supply. Fertilizer, also petroleum based, becomes more expensive. As climate changes and rainfall patterns shift, farms that have historically been productive must now be moved to new locations, and farming may become impossible in some countries, particularly in Africa.

The essence of nonviolence recognizes that on some deep level, we are all alike. It is this kernel of 'sameness' that opens the way to achieve results that reward everyone. Sure there will be compromise, we may not always get everything we desire, but we can always achieve a result that recognizes our connection with others and the universe, and that achieves results we can all be pleased with. The Golden Rule, treat everyone the way you want to be treated, exists in every major religion because this point of view not only works, but is fundamental to our growth and development. Using this rule to address our disagreements, instead of military force, would be a powerful way to bring about a world that works to replace our current, dysfunctional paradigm.

Again, look at how China is adapting to the current world situation. As China's fast-growing industrial base creates a huge need for new energy imports, China buys oil with cash, particularly cash that it has on hand due to the large trade imbalance with the U.S. In effect, our tendency to buy goods from China, made with labor that has benefited from outsourcing the U.S. manufacturing capability, has given China the money it needs to acquire friends around the world. China not only buys oil, but also offers large infrastructure projects in very poor countries. It has developed relationships with oil-rich countries that historically have been partners of the U.S., such as Venezuela, Indonesia, Nigeria and Canada, as well as countries that have not been friendly (Iran, Angola, Myanmar and Kazakhstan). Most countries, when faced with choosing between receiving 'military protection' from the U.S. and selling oil to China, will choose a relationship with China. It is unlikely that we can effectively slake our thirst for resources at gunpoint.

Another example of a different approach can be found in Japan. Japan draws upon its deep cultural traditions that emphasize economic cooperation between private enterprises and society. In Japan, no one expects to get really rich, but also no one expects to get thrown under the bus. America doesn't understand

this way of living; it doesn't fit with our type of free market economic model. Our capitalism favors capital over labor, profits over wages, shareholders over workers and communities. Economic growth is the only goal, and people are pushed aside or even sacrificed to service the Almighty Dollar. We adopt an attitude that any problems resulting from this system can be handled later, ignoring the fact that this is always more expensive, and frequently impossible. We turn to force, whether through the courts or law enforcement, to ensure the rights of the corporation win out over the rights of people. Many other nations revolt at the thought of adopting our system, and consequently, we must force it upon them through military means.

In America, war is sold to those who must pay for it, with treasure and with kin, under the guise of 'national security'. We endure long lines in airports, take off our shoes and carry plastic bags full of small doses of liquids, and feel safer for it. We allow the farce of drama, the performance of the costumed security staff, to give the impression that we are safe once again. Although the changes to cockpit doors have made us marginally more secure, enough time has passed since 2001 that complacency has once again taken its seat at the head of the airport security table. Testing routinely shows that if one were determined, one could get enough material through the checkpoints to wreak havoc on board a flight. And the TSA checkpoints do nothing to protect us from lethal actions that do not require tools inside the cabin of the aircraft.

We accept as truth that striking the Taliban in Afghanistan, and removing Saddam Hussein from power in Iraq, will keep us safe at home. We don't question why the Taliban, or anyone else for that matter, would hate us enough to die while killing some Americans. We allow our belief that America is the premier example of statehood to hide the fact that others may not agree with us. We fail to dig into the day-to-day lives of others and find the shortcomings there that could be addressed through education or food or simply listening. We think others need to be forced to do what is right, never questioning what is 'right' or allowing that what may be right for us is not right for someone else. Our media has not kept us informed of how our nation's policies have impacted other nations and peoples in the world, or how much those policies have widened the rich-to-poor gap. When the U.S. asks for support of unpopular policies from Arab governments, their response is often to increase the repression within their own borders, of their own people, to stifle dissent about these policy changes before it can occur. The Arab world is not a collection of democracies. A poll of six Arab countries (Saudi Arabia, Lebanon, Egypt, Jordan, Morocco and United Arab Emirates, Feb 19 – March 11, 2003 by Zogby International) showed that over 80% of these Arab countries' population felt the U.S. led invasion of Iraq was motivated by the Western desire for oil. Now, six years later, it has been confirmed by the outgoing Bush administration, that this was a key factor. What does it say about us, that we allowed the Administration to lie to us, to whip our fears into a frothy mixture that we swallowed without question?

The survey also shows that these countries have come to view the UN as an instrument of American power in recent years. A UN sanction would do little in their eyes to justify an invasion of an Arab state.

“The irony here is that if America fails to gain support at the UN for a war in Iraq, many Americans will see the organization as being increasingly irrelevant; in the Middle East, most Arabs would see UN defiance as an emergence of its relevance.” Shibley Telhami

What should be obvious is that the U.S. can no longer be the world’s policeman. We have neither the right nor the resources to fix every problem at the point of a gun. It doesn’t matter how we cloak our projected power, or how pure our motives when we set up an armed camp inside another nation. Others can only see it as an intrusion, and no amount of platitudes can overcome the history we have left strewn behind us, a history of death and destruction everywhere we go. We have to let it go.

There are many reasons we have failed. We trumpet the benefits of free market economics, yet no market is truly free. We dismiss the problems as unimportant or even beneficial; a ballooning trade deficit is good because it allows Americans to buy Chinese goods cheaply, for example. All the failed military operations are the fault of bad strategy, not a flaw in the model that uses military power. We have given the military the expanded task of not only doing what it has trained to do for centuries, dominate with firepower, but also of winning the hearts and minds of the people while holding a gun. We continue to devalue the lives of others, few news agencies report anything about the scores of foreign citizens who are killed for every American life lost. Today, soldiers are sent abroad to teach American democracy and American capitalism in the expectation that they will be welcomed with open arms. We fail because we don’t investigate what the local population needs in order to be successful. It may be infrastructure, or education, or even just clean water. We arrive carrying a hammer and try to make the solution look like the nail in our pocket. This approach is doomed from the outset.

The Pentagon announced establishment of AFRICOM, a new regional command center, in 2007. AFRICOM will oversee military operations on the African continent, including covert operations without the consent of the nations involved. Already, the U.S. imports more oil from African nations (18% of all imports) than the Middle East (16%), so it is to be expected that we have a military presence in the region to protect our ability to import oil.

To be frank, America lags behind many, and often most, developed nations in the attributes that lead to a healthy, happy life. It is hard to claim “We are #1” when you are far down the list ranking average income per person, average life expectancy, mortality during childbirth, infant mortality, number of people below the poverty level, and the list goes on and on. We must catch the idea put forward by Mikhail Gorbachev, when he said,

“America should get rid of this disease which I call ‘Winner’s Complex’. Leadership should be done not by domination, not by becoming a policeman in the world, but by being a partner.”

We did not grow to be the nation we are today through overseas expansion, instead we welcomed immigrants from other oppressed populations. America

offered a place where creativity was rewarded, where helping others was the best way to help ourselves. We took pride in keeping the bullies at bay, we banded together to help each other to have the tools we needed to be the best we could be. We must recapture that spirit of cooperation in everything we do, whether in cleaning up the slums or run-down parts of our neighborhood, or in lifting the Afghan people out of the twelfth century lifestyle that the Taliban seeks to restore. Our current path, claiming the right to act unilaterally and preemptively is now undermining our core values. We see our Constitutional protections stripped away in the name of 'national security'. We see our country violating international agreements (Geneva Convention), or failing to join international agreements (Kyoto Protocol), and this harms our image as a moral and esteemed member of the global community. We claim to value self-determination, yet time and time again, we intervene in the internal affairs of other countries, often supporting a regime that ignores basic human rights, and only with the goal of securing economic benefit for a multinational corporation. We must return to allowing people everywhere to choose their economic and political systems.

The True Axis of Evil is Poverty, Racism and War.

War will not address poverty. Despite the rhetoric of "rebuilding" and "reparations", any country experiencing war will be set further behind the world's standard of living, because of the destruction of their infrastructure, communications and transportation facilities. It will be decades before they have a better quality of life than before the war began. The United Nations reports that 40 billion dollars (2002) would feed, clothe, shelter and educate everyone who is lacking these basic needs today. The War in Iraq has cost a trillion dollars in 6 years, with no estimate on the costs of the occupation and rehabilitation the Administration touts as the conclusion of their efforts. The U.S. military budget for one year is now over \$500 billion. Even if we adjust for inflation, add on costs due to the increase in the total number of refugees because of Iraq and Darfur, and tack on an extra 50% because we don't trust the UN to calculate this figure very well, we could still pay for lifting every soul on this planet out of starvation and ignorance using 6 months of military spending.

War will not end racism. Many around the world view the wars we are fighting in Iraq and Afghanistan as Christian vs. Muslim, American vs. Arab. We've seen some hate crimes here in America, because of the racial hatred fed to us by our leaders, the 'us vs. them' mentality, the creation of an enemy where there was none before. It is difficult for many Americans to acknowledge they are Muslim, for fear of retribution. The demonizing of a religion or race is necessary in order for our soldiers to feel justified in carrying out their orders. And no matter the training, the high tech gear, the amount of money you allow the military to spend, the pride you have in "our men" or the expectation of victory (and disbelief in the possibility of defeat!), war is still hell on earth, innocents die in war, and many soldiers who have a crisis of conscience come home emotionally scarred for life.

"If it were all so simple! If only there were evil people somewhere insidiously committing evil deeds, and it were necessary only to separate them from the rest of us and destroy them. But the dividing line between good and evil cuts through the heart of every human being. And who is willing to destroy a piece of his own heart?" Alexander Solzhenitsyn

At home in America, we are too busy burying our heads in the sand as our government systematically removes the legal framework that protects our liberties on our home soil to pay attention to the atrocities happening in our name overseas. In the eyes of the rest of the world, America has become the epitome of hypocrisy, espousing beliefs in freedom, liberty and justice, yet perpetrating heinous acts of violence and stripping millions, at home and abroad, of the most basic human rights. We threaten other countries with boycotts, sanctions and embargoes from atop our throne as the world's greatest nation, and yet we act in identical ways ourselves. The Guantánamo Bay Detention Center became the poster child symbolizing the depths we reached in refusing to grant even basic human consideration to others. It will require time and many compassionate acts in order to put the memory of that place behind us.

Nationalism is the sense that one's self and one's neighbors are uniquely virtuous. This feeling led to September 11, 2001, and came to the forefront within America itself immediately after those tragic events. Yet, what gives Americans the perspective to make a decision about the quality of life for a people on the other side of the planet? Who are we, to say how they should live, or to say that they require democracy, or that they will be happier with 500 channels available on TV? Why must they act like us? And most importantly, why must they give us what we want?

"The secretaries and file clerks and young executives in the two Towers and the mothers, fathers, sons and daughters on the 4 planes would not have been the target of hatred, had we Americans better expressed our highest values throughout the world had our government expressed in all it's actions the fairness and generosity that characterizes our people. That disconnection between our people and our government does not excuse the cold mass-murders committed by terrorists, but it helps explain it, and we cannot stop it if we do not understand it." Doris Haddock

According to the UN Food and Agricultural Organization, 35,000 children died of starvation on September 11, 2001. They died without news headlines, without telethons raising millions of dollars for their families, and without UN resolutions calling on their government to feed them. Apparently, that is normal, and therefore acceptable. One hundred people die of regular, normal, everyday flu in the U.S. every day, and yet a swine flu kills 3 people in a week and we are ready to refuse to let planes land that began their flight in Mexico City. We act from the feeling of fear that the media generates without questioning what they tell us, without soliciting more information or alternative points of view.

“Those who died on September 11, 2001 represent the best that is in us, the calling of our highest selves. We owe them anger, we owe them grieving, we owe them justice. But everything we do now must reflect the best, not the lowest, of our humanity. We pay those precious souls their rightful tribute only by leveling a wise justice, only by exhibiting a tender righteousness. We pay them tribute only by understanding what brought about their deaths, and hewing to those principles that call us to a more abundant life.” William F. Schulz

Over 1200 people were detained in the first months following September 11, 2001 without access to lawyers, phone calls or charges. We've given up our rights and freedoms in return for an attempt to stay safe. We're willing to pay any price for revenge. Better our dollars for high tech weaponry than American blood spilled in the sands of the Middle East seems to be the attitude. But can we find and destroy every last one of the perceived 'enemy'? If we don't, it only takes one person bent on revenge and our safety is lost forever.

Our bombs and gun ships are destabilizing volatile (and nuclear) regions, blowing up innocents, putting millions into starvation. We ignore past evil in favor of aid today for our objectives, ensuring a market for our goods and access to oil. Other countries we destabilize must rely on terrorist attacks like the September 11th attacks to hit back at us. And we act like it's an unprovoked attack, when we are struck.

“Why are Americans deeply reluctant to accept heavy loss of life for military ends? Could it be, sir, because the nation has come to believe that each individual's life is sacred? Does that belief have moral meanings? Should we extend those moral meanings to our enemies?”
James McKinnon

We cannot target only military objectives. Civilians are at risk through the disruption of the infrastructure. Who, who watched the twin towers fall, can wish for innocents to die to make a political statement? Remember the news videos of people walking the streets of Manhattan, holding out pictures of missing loved ones? Is that what you want to happen to fathers, mothers, sisters and brothers outside the U.S.?

“We can choose whether the bin Ladens are seen as heroes or pathetic nut cases, whether they are joined by dozens or millions. Without... peace, we are outnumbered, defenseless, doomed, condemned to the sort of slow defeat-through-mosquito-bites that happens with “asymmetrical” wars against an unbombable, unquenchable foe. Or worse, the kind of global conflagration in which everyone loses. The only alternative is a peace that will propel us into a new world, a world of six billion family members. In a war in which “everyone must choose”, the best way to defeat our potential enemies is to tear down the walls and befriend them.” Geov Parrish

“Our posturings, our imagined self-importance, the delusion that we have some privileged position in the Universe, are challenged by this point of pale light. Our planet is a lonely speck in the great enveloping cosmic dark. In our obscurity, in all this vastness, there is no hint that help will come from elsewhere to save us from ourselves.” Carl Sagan

One fundamental way that the U.S. is fueling the international fire is by maintaining a nuclear arsenal that dwarfs that of any other nation. One Trident submarine carries 24 missiles, each with up to 17 independent warheads that pack a power ten times greater than the Nagasaki bomb, and capable of traveling 7000 miles before impact. The U.S. has 22 Trident subs, but this is only a fraction of our entire nuclear arsenal. Missile defense systems strike fear in hearts around the world, as they give life to the possibility that we will assume we are safe from retaliation and proceed with a preemptive strike against others. This gives great weight to the weapons we possess, destabilizing the balance of power between the U.S. and the world. Why does Iran crave a nuclear weapon so desperately? With the U.S. having invaded countries on either side of them, they have a natural suspicion that they are on the short list of possible future targets. And while few experts believe that Iran's goal is to launch a nuclear missile strike against anyone, for the retaliation would be brutal and instantaneous, there is a very viable scenario in which Iran slips a crude weapon to a terrorist cell, and the resulting fireball in some major U.S. city sufficiently decimates our economy, environment, population and spirit that we no longer pose a threat to Iran. There is a sense among most nations that they must 'keep up' with the more powerful nations, and this leads to constant struggles to join the nuclear club. Someday, unless arsenals are eliminated, nuclear proliferation will leave us with a historical calamity we will regret.

Why war in any case? War is primarily a tool of those in power, who either need resources, or hate a different religion, culture or lifestyle. Of course, we Americans have been shielded from understanding the blood feuds that can exist for over 500 years, that allow people to be so incensed over something that happened only in stories they have heard passed down from distant ancestors, that they will kill another for reasons they hardly even know and certainly don't understand.

Let's face it; you are either for or against the war in Iraq, the war in Afghanistan and the "War on Terror". No one in the USA is immune to having an opinion, much like abortion or gun control. The challenge facing the peace movement is to change the minds of those who support the war. Today, the peace movement is in the minority nationwide. Where is the pro-war movement the strongest? In the Bible Belt. One key question is: "Why are Christians for the war?" Is it because this "War on Terror" is really Christian vs. Muslim? Is it because so many are terrified of another terrorist attack on U.S. soil? And what makes Christians more vulnerable to this fear than, say, Buddhists? Is it because the majority of the soldiers come from Christian families, families that pushed them to

enlist in the first place? Is it because Christians, by accepting direction from authority in the most fundamental aspect of the life (spirituality) using faith alone, are conditioned to accept direction from authority (the President) about other important matters, without question? How does one sublimate the teachings of Jesus about nonviolence so that the country can engage in war? It is unfortunate that our politicians invoke God's will and say it gives them a license to kill. This only feeds those who believe America wages religious war.

There has been an explosion of knowledge in recent decades, such that no one person can keep up with it all. Investigative disciplines of 40 years ago have spawned multiple sub-disciplines, and some of those have spawned their own, and few can keep up with even one of these. We can be forgiven for being overwhelmed, unable to keep up with the latest discoveries and their implications. But does our ignorance of science, or medicine or even ethics excuse our misbehavior? Does it excuse our inattention? Does it forgive our poor decision-making? We cannot allow ourselves to fall complacent victim to the whims of government officials or corporate greed. We cannot allow the media to snare our desire for happiness with mindless entertainment and well-spun lies on the nightly news. Stories teach us how to act. Today's stories, spun to benefit corporate advertisers, support the dominant power structure; they make it seem normal, the only way to live, the only topic of conversation. We allow emotionally charged news to lead us down the path of fear, whether a threat exists in our neighborhood or not, and then ads entice us to buy our way back to feeling loved and safe by consuming more stuff. What purpose is served by learning that 6 people were hurt in a New Jersey turnpike accident, when we live in California? Why do we believe invading a country on the other side of the world will enhance our security? How could that have possibly have made it safer for you to travel here in the United States? Why do we continue to let our treasury hemorrhage billions of dollars each month in the cause of "homeland security"?

Look at the budget difficulties California is facing now. Eight years ago, the state treasury was flush with the Internet bubble cash bonanza, and California's politicians ratcheted up their spending to keep pace with the influx. Since the bubble burst, there's been no decrease in spending here, and in 2009, with the collapse of the national economy, the state faces a real possibility of bankruptcy. Is it just the canary in the coalmine, warning us of what is to come? The federal government is treading a similar path, despite having balanced the budget a few short years ago. That situation gave the new Administration the breathing room needed to charge overseas and play SWAT team in the Philippines, Columbia, Afghanistan and Iraq (to name a few) without regard to cost. The U.S. has military personnel in over 130 countries around the world. We, the public, have allowed Congress to rubberstamp the appropriations (read: spending) requests that fuel these activities with a blank check. We refuse to allow any politician to question the military budget, other than to line out a few \$2,000 toilet seats.

A reasonable goal, to limit the military budget, is necessary today. What might be a reasonable budget? One proposal is to add up the budgets of the countries that rank 2 through 11 in the world in military spending, and cap the U.S. budget at that amount. Incredibly, if we limit the budget to the combined total of the next ten

nations, we would lower the military budget by \$180 billion dollars, enough to fund any universal health care plan currently (2009) being discussed.

Why do I think we have become so immune to the suffering of others? So callous that we allow these invasions to take place in our name? So curiously silent while our young men and women bleed and die on foreign soil? Our entertainment has inured us to violence and suffering. Our numbers make us feel insignificant. Our news outlets perpetuate the lie that government would never allow something bad to happen to us. We must only follow the laws, including the new ones that must be enacted to protect us from ourselves when we display no common sense, and they say we will be safe. Our news outlets also inform us of the cruel and unusual things that happen to others, and scare us back into our homes where the only escape so many choose are the violent and miserable scenes brought inside by the satellite dish or video game. Heaven save us, if by chance or by sinister plot, a bare breast should interrupt the scenes of violence we were *expecting* to see on Super Bowl Sunday. How disturbing that is! How disgusting, in front of the children!

War is what humans wage when they disagree with another and can't (or won't) solve the problem any other way. Terrorists who see the economic, cultural and spiritual divide between the West and the Middle East and accept the religious argument that heretics must be slain, act on it and attack us. It remains clear to those religious believers today, that the Western world offers nothing that makes their lives easier or more loving. Both sides claim that God sanctions their actions. Even the pious Abraham Lincoln came to realize it was fruitless, even sacrilegious, to invoke God as his ally during the Civil War. He lamented,

"In great contests each party claims to act in accordance with the will of God. Both may be, and one must be, wrong."

For every instance you can cite from a religious text in support of war, I contend there are far more references against killing others. The Muslim world is often hailed as the cradle of civilization. During the Dark Ages in Europe, the Middle East prospered and was the pinnacle of development and education. Today the roles are reversed. There is no guarantee these roles will continue, and one can hardly fault the Muslims if they feel like they are being treated as second-rate world citizens. One can fault, however, the Western world if we fail to treat others with justice, equality and compassion. The disparity in cultures we see today has spawned much of the anger and desire to protect the Muslim lifestyle which leads to the violence we can't seem to quell. It also highlights the disparity within our own country, as the rich/poor divide grows with each economic quarter. I shouldn't expect us to treat others any better than we treat our own citizens. It may be considered by some to be unpatriotic to suggest that actions of the USA contributed to the tragedy of 11 September 2001, but to ignore the affects of exporting our consumer culture and sacrilegious media (TV and movies) into the Middle East is naïve. Also, we cannot forget how our culture has developed over time. Note this comment by Samuel Harrington:

“The West won the world not by the superiority of its ideas or values or religion (to which few members of other civilizations were converted) but rather to its superiority in applying organized violence. Westerners often forget this fact, non-Westerners never do.”

To solve any problem effectively, you must identify the issues held dear by all parties and deal with them in a manner that meets everyone's needs. We won't be able to stop any war in the Middle East until this has been done.

Because the gulf between rich and poor continues to widen, we must work to ensure we have adequate conflict resolution skills to defuse tense situations. Thankfully, efforts are under way in some of the world's conflicts to use Conflict Resolution and Nonviolent Communication techniques, to bring the warring parties together in sharing and openness, so that they may begin to see each other as friends rather than enemies. It may take years to work through building trust and compassion before we are able to reach consensus, but it has been done before. We could all use training in conflict resolution skills, it should be a standard part of our school curriculum. At the heart of these skills is coming to see the humanity in the other person. Everyone wants the same feelings of love among their family and friends as we do. No one is pure evil. There is always a common ground, if we can only connect in authentic ways. There are multitudes of ways to solve any conflict, if we listen to our peaceful and loving heart, together.

You ask for solutions? Multilateral disarmament, and certainly the U.S. has so many more weapons than anyone else, we have room to begin this process unilaterally. Stop selling American-made weapons overseas. Pull the U.S. military out of all overseas bases, and return our military to 'national defense' solely within our own borders. Address hunger, homelessness, disease and unemployment on a worldwide scale. What if, instead of invading Iraq with our weapons, we had lined up convoys on the Iraqi border.... convoys of food and medicines... and began to drive into the country and deliver these goods? Would the Iraqi army really have fired on us to prevent food distribution or to prevent their children from receiving medicine? What if, in our push towards nonviolence, our only weapon usage was in self-defense while delivering food and medicine or installing solar panels or drilling wells? Would there have been an Iraq war? Would Saddam have remained in power? The Arab world, angry over U.S. 'imperialism' and the export of the violent and greedy U.S. culture via movies, music and the Internet, will continue to unite against the America. We must begin to address the reasons why we are unsuccessful in aligning our goals with theirs. We ultimately want the same things: security, peace, family, and food to eat. Let's *build* bridges, not bomb them. Let's begin to teach nonviolent communication and conflict resolution in our schools. Incorporate these ideals within our culture by allowing our children to see there is another way to cope with disagreement that does not rely on violence. Decriminalize drugs and use the funds now spent on enforcement to create treatment and education programs instead. Release all drug offenders currently held in prison, and place them in rehabilitation programs. Reduce our consumption of material goods and

therefore our need to import resources and borrow money, so that we aren't tempted to invade another country. Let's put some of our military spending into developing hydrogen fuel for cars, not hydrogen bomb testing. Let's be the good neighbor, not the town bully. Let's be seen as part of the solution, not part of the problem. Achieving a new kind of peace will require refusing to have an enemy.

Political Reform

Much of the framework of our political system was put into place well over 200 years ago. While it is remarkably robust, it still must adapt to keep up with changes in the culture of our country. The pace of cultural change matched that of political change in our country's early years, but as the pace of cultural change has increased so dramatically in recent years, politics is having difficulty keeping up. Combine that with the increasing influence that big business has over our lawmakers, and we have a system that is ripe for a major facelift.

In the elections of 2008, corporations provided over 80% of the campaign funding. It should be no surprise then, if your lawmaker is less than responsive to you, the citizen, when a law is proposed to benefit business. For quick example, look no further than the tax code. Remember that many of our largest corporations pay no income tax. In 2002, the state of California had 65 possible tax credits. Of those, 8 credits were claimed on 5 or fewer tax returns, all corporate. Combined, all 8 credits saved over \$20 million in tax for the 28 companies involved. This highlights how easily much of our complex and convoluted tax law is aimed at helping just a few family members or friends, or corporate contributors, of our lawmakers. Often, the public must raise a great hue and cry in order to overcome the quiet back office whisperings of corporate donors. Typically, businesses contribute to both major candidates, being unsure of who will win and laying the groundwork for future elections. If we are to keep our legislative system working for the people and not big business, then step #1 is campaign reform that eliminates corporate contributions. Whether that involves public financing of all campaigns, or limits on who can contribute and how much, or spending limits, is unclear. What is obvious is that we need major reworking of campaign spending.

Corporations are not the only beneficiaries of our current legislative process, however. Commonly referred to as 'pork', the ability of a particular legislator to add a few lines (or pages) of spending to any bill regardless of the topic also has outlived any usefulness. In December of 2008, just to highlight a particularly egregious example, a bill was working its way through the U.S. Congress that would bail out the three Detroit automakers. Hastily cobbled together, as the economy threatened to crumble onto every Main Street in America, it was passing through both the House and Senate lightening-fast, and was expected to be finished over a particular weekend. By Sunday, however, several Republican Senators had withdrawn their support and the bill was doomed to failure. Why did the Senators pull their votes? Not because of an issue with bailing out GM and Chrysler, they only had an issue with giving \$5,000 per year raises to some

Federal judges, which was part of this bill. What are raises doing in a law that purports to deal with addressing a key economic issue? The concept that every lawmaker can add something to a bill that increases spending and has nothing to do with the topic at hand in return for his vote is scandalous. There's an easy way to deal with pork, a bill can only deal with one subject. Nothing extraneous can be added. If it doesn't have to do with the topic of the legislation, it doesn't get into the bill. Our goal is a transparent government, and passing 400 page laws that are 7 pages on-topic and 393 pages of 'bridges to nowhere' is not transparency.

In his book "*Come Home, America*", William Greider puts forth the idea that we 'thicken' democracy. To 'thicken' our democracy, we need to increase its transparency and increase citizen participation. Democracy means allowing citizens to actively participate in setting public policy. Today we are far from achieving that goal; for instance, during the health care reform debates of 2009, polls repeatedly show that over 70% of the American public support a public option, yet lawmakers are loath to include one. This is likely due to opposition raised by the health insurance industry, for-profit companies that also happen to be large campaign contributors. It is elitist to think that the public cannot or should not be included in public debates of the issues of the day. We need to develop more effective ways to let our voices be heard.

There are many ways to achieve these goals. Remember, for the first 200 years of our country's existence, communication was very limited, especially when compared to what we have today. The first trans-Atlantic live television broadcast happened in the early 1960s. Long-distance telephone costs were usually more than the cost of sending a telegram, at least during the period of time that either was available. News took days, weeks or even months to arrive. This lack of good communication over distance led to the formation of the Electoral College. This effectively substituted a vote by representatives for a vote by the citizens during Presidential elections. It made sense when news traveled slowly, who wants to wait months to be told the winner of the national election? Today, however, the Electoral College system only accomplishes 2 things: one, it allows a candidate who receives the most votes to lose the election, and two, it allows for pollsters to direct the campaigns to focus their efforts on just a few, critical *precincts* across the nation. If the popular vote was the only determining factor in the outcome of the race, then there would still be value in campaigning in every state, even ones where polling shows a candidate to be losing or winning by a large margin. A vote in any state is equal to any other vote, in this case. Today, with the Electoral College, a few votes are valuable; many (or most) are 'worthless'. It is kept in place by the vested interests of the two major parties, which would see their power to control elections eroded with the elimination of the Electoral College.

Thickening democracy also means increasing the transparency of government at all levels. With the advent of the Internet, and the increases in the speed of communication and the usefulness of search, putting all government documents online and allowing voters the chance to become more informed about the actual details of governance can only enhance our government. Not only will it allow the

people to become watchdogs over the process of government, but it gives us the ability to monitor those people in government that are not subject to recall or election. People often complain that the government is slow to change or respond to the needs of citizens. Most government staff are hired and know that as the elected figurehead may be voted out of office soon, they can be patient, wait for the politician to leave, and continue with business-as-usual.

Transparency is the only way we can address this issue and hold every government employee accountable for his or her actions. We are, after all, their bosses.

It also implies more frequent and pertinent communications between voters and lawmakers. Some politicians are becoming involved in Twitter and Facebook, some are blogging, but many are still a bit behind the communications revolution. As these new tools become more and more ubiquitous, it becomes easier for us to let our voices be heard. We need to explore ways that encourage citizens to kibbutz with their representatives, and possibly even develop a mechanism that allows citizens to place a temporary hold on public decisions pending input from a wider audience. And we can't sit by and let these tools get dusty; we must take the reins and strengthen our relationships with our legislators. Today, if a lawmaker hears from more than just a few citizens about a particular topic, they pay attention. Sadly, very few citizens make their opinions known. It could be we have learned to feel insignificant; that too many times our voices were drowned out by corporate spending or backroom dealings. If we want to take democracy back we can, but not without effort on our part.

Here comes the paradigm shift, the change to the current system that will propel our democracy in the new Millennium: Fusion voting. Today, we have a two-party system. In effect, there is no meaningful channel for new ideas or opinions, and less and less difference between the Democrats and the Republicans.

Republicans claim to be the party of small government, yet government has grown more under their leadership in the last 30 years than in the entire 200 years before President Reagan. Democrats claim to be the party of the working class, yet most changes to tax law they propose benefit big business. But it hasn't always been this way, and certainly both the Republican and the Democratic parties are relatively young. Some argue that there are real differences between the two parties, but as corporate funding of campaigns pours similar amounts of money into both, the votes that result tend to follow the interests of business and the military, not political parties or the people. Just as one example, the Democrats won control of Congress in 2006, swept into power, according to the pundits, on a promise to end the war in Iraq. Yet the Democratic-controlled Congress continues to pass all funding bills that continue the war, which is very good for business.

Despite the increasingly narrow gap between the actions of either party, starting a third party to compete for votes is not going to work in any realistic scenario today. So much money, tens of millions of dollars in national races, pours into each party, that there is no way an upstart party can buy enough media coverage to compete. A groundswell of support on the Internet holds potential, but we are still several elections away from that being a viable option. Garnering even 10%

of the vote, as a third party, would be huge. Yet this scenario is unlikely to occur anytime soon.

Some countries use proportional voting, meaning that if you win 10% of the vote, you get 10% of the seats. This might be attractive for local races that elect several people to a local governing body, Congress or the City Council, for instance. But this doesn't work for individual races like for the Presidency or state Governor. The idea of fusion voting however, promises to offer some real effects even at low levels of support for a new party. It is currently used to some degree in 8 states, and was used much more widely before 1900. In fusion voting, one candidate can be listed on a ballot as running for more than one party. The votes are tallied by candidate, not by party. Here's an example. Let's say the election results look like this:

Democrat	Sally Smith	42%
Republican	John Doe	46%
New Party	Sally Smith	10%

Before the election, the New Party presented its platform, the issues and solutions it cares about most, to both candidates. Sally Smith said she could support this platform, if elected. So the New Party made Sally Smith their candidate, despite the fact that she was already the Democratic candidate. As you can see from the election results, the Republican candidate received more votes than any other party, but what counts in fusion voting is not the party votes, but the candidate's votes. Sally Smith received a total of 52% of the vote, and thus wins the election. What is clearly seen by all however, is that without the New Party votes, Sally would not have won. Therefore, she sees the benefit of supporting the New Party platform as much as she can, in order to maintain their support for the next election. This method of counting votes allows third parties to have actual impact from the first time they place a candidate on the ballot. Adopting these few adjustments to the functioning of our democracy will enhance the ability of citizens to have their voice heard at all levels of government. We must take back the government from the special interests, from the big money players that often work against the people just to increase their own gain and profit. Let's bring awareness to our political system and raise the standard for a government of the people, by the people and for the people.

Education

This section is less about a new paradigm shift and more just a plea that we improve our education system. In California, in 2008, high schools suffered a 19% dropout rate. Testing put into place because of the federal mandate referred to as 'No Child Left Behind' shows very inconsistent results, around the country and even within just one school district. The cynical person might charge that this is the result of differences in income, class or race among various neighborhoods. Some might say it is the result of the child's parents not having the ability to remain involved in their education due to working multiple jobs or

suffering from divorce. Whatever the reason, the furor each year over the issuance of H1B visas to educated foreigners shows us that our schools are not currently graduating enough educated people. Colleges across the country invest large amounts of money conducting remedial classes in English and Math, because incoming college freshmen are unable to read and write at an adequate level for college studies. Not everyone needs to attend college, but our current system is failing many who have that desire.

We must reach out and teach our children to be part of the community, finding ways to encourage them to volunteer and make their neighborhood a more caring, supportive place. Part of being a good citizen and making effective decisions includes understanding the needs of others, and how one's own actions have an effect within the larger community. It's not 'all about me' and schools can have a great part to play in teaching this to our children.

Schools also need to begin to teach children about the finances and economics. Most young adults learn to handle banking tasks on their own, or with the help of a parent. Yet most adults know very little about interest and the effect of compounding, or how to select reasonable ways to invest money. We certainly, as a culture, fail to understand the many aspects of borrowing. Let's work to improve the amount and the content of financial education for our students. Part of the problem with having a test like the one in 'No Child Left Behind', is that it allows some teachers to slide by, teaching 'to the test'. They focus their teaching on just the aspects that are going to be tested, and in many ways, divert their teaching from one of inquiry and critical thinking to one of rote memorization. I helped an English teacher teach English to about 100 Burmese refugee children in a school on the Thai-Burma border in 2008. The teachers were using Burmese textbooks (pamphlets, really) and the Burmese teaching method, which is rote learning. I found that children in the third and fourth grades knew a few hundred English words; they knew colors and numbers and some nouns and verbs. They could recite the sentences from their book, 'the red ball is on the table' for example, but if I asked them 'is the blue ball on the table?' they could not process the difference and respond. It must be handy, I thought at the time, for a dictatorship to avoid teaching any thinking skills. We must avoid falling into the same pit in America. We benefit much more from teaching students how to learn, so that they may continue to learn throughout their lifetime. As we grow and our life circumstances change, we cannot predict what new skills or facts we will need to pick up along the way. Knowing how to do research and find answers, and how to critically evaluate what we do find, is of paramount importance in these days of Photoshop and the Internet. It is far too easy to believe anything you see or to accept a fact or figure without question, just because it's on the Internet. We all must remember to question everything we are told, but schools must teach this skill even more than rote memorizing of facts. This need for critical thinking skills is also apparent as we evaluate new scientific discoveries. So much information is available today, and so much of our understanding of the world around us is changing, that we must constantly re-evaluate our worldview. It is easy to get caught in mistaken impressions, to hold onto outdated beliefs and misunderstandings. So much of our information about

new discoveries comes from traditional media or the Internet, and neither sources consistently present unbiased data. We always have to question the motives of the source, and use our own logic to sort out good conclusions from bad. This is a skill that needs to be a foundational teaching in our schools. We must also begin to include conflict resolution in the school curriculum at all grade levels. Whether we integrate the Nonviolent Communication training described in the groundbreaking work of Marshall Rosenberg, or develop some other program that works, children must learn from an early age that violence is not the answer, and that seeing our relationships and connectedness is essential to solving conflict in ways that benefit everyone.

This plea for improving education applies worldwide. Today, Indonesia is being deforested as the poor cut down trees that are valued for furniture making. But the Indonesians don't make furniture; they are uneducated. Instead, they sell the tree to a wood dealer, usually for around US\$200. He in turn sells it to the craftsman, often in Thailand, for US\$400. The craftsman turns out the finished product, which he sells for US\$1000 to a store in Los Angeles. The store then sells the furniture for US\$4000. Education in Indonesia would shift more of the profit to the workers at the source of the raw materials, cutting down on transportation costs and pollution as well as providing income and dignity to the poor.

And finally, we must integrate the understanding that we learn best by doing into our school system. Students learn much more from an internship at a local business than they do from lectures on economics. They learn much more about helping others volunteering to visit patients at a local hospital than by reading about great humanitarians throughout history. It probably isn't feasible to expect that most of a student's time will be spent on a class field trip, but adding frequent and varied internships or work/study projects will go along way to providing them with the hands-on skills that will make them effective citizens tomorrow.

Challenge: Environment

Excerpted from the remarks of a **12-year-old** Canadian at the **1992** Earth Summit in Rio de Janeiro, Brazil:

“Hello, I’m Severn Suzuki, speaking for ECO – the Environmental Children’s Organization. We are a group of 12- and 13-year-olds trying to make a difference: Vanessa Suttie, Morgan Geisler, Michelle Quigg and me. We raised all the money to come here five thousand miles to tell you adults you must change your ways. Coming here today, I have no hidden agenda. I am fighting for my future. Losing my future is not like losing an election or a few points on the stock market. I am here to speak on behalf of the starving children around the world whose cries go unheard. I am here to speak for the countless animals dying across this planet because they have nowhere left to go. I am afraid to go out in the sun now because of the holes in the ozone. I am afraid to breathe the air because I don’t know what chemicals are in it. I used to go fishing in Vancouver, my home, with my Dad until just a few years ago we found the fish full of cancers. And now we hear of animals and plants going extinct every day – vanishing forever. In my life, I have dreamt of seeing the great herds of wild animals, jungles and rain forests full of birds and butterflies, but now I wonder if they will even exist for my children to see. Did you have to worry about these things when you were my age? All this is happening before our eyes and yet we act as if we have all the time we want and all the solutions. I’m only a child and I don’t have all the solutions, but I want you to realize, neither do you.... You don’t know how to bring the salmon back up a dead stream. You don’t know how to bring back an animal now extinct. And you can’t bring back the forests that once grew where there is now desert. If you don’t know how to fix it, please stop breaking it!

At school, even in kindergarten, you teach us how to behave in the world. You teach us not to fight with others, to work things out, to respect others, to clean up our mess, not to hurt other creatures, to share -- not be greedy. Then why do you go out and do the things you tell us not to do? Do not forget why you are attending these conferences, who you’re doing this for – we are your own children. You are deciding what kind of world we are growing up in. Parents should be able to comfort their children by saying ‘everything’s going to be all right’, ‘its not the end of the world’ and ‘we’re doing the best we can’. But I don’t think you can say that to us anymore. Are we even on your list of priorities? My Dad always says, ‘You are what you do, not what you say’. Well, what you do makes me cry at night. You grown-ups say you love us, but I challenge you. Please make your actions reflect your words. Thank you.”

A New Paradigm

It is becoming clearer every day that the vision of scientific/materialism we have enjoyed for several decades is at best just the tip of the iceberg and at worst, a dead end path. This is no more apparent than in the bedrock of modern science,

evolution. When Darwin first proposed his theories over 150 years ago, the global mindset found ways to discount the changes in life it couldn't deny, but resisted incorporating change itself into its worldview. Evolution, the idea that everything becomes different with time and new experience, contradicted the teachings of the Church and were initially ridiculed and dismissed. As more and more people saw how evolution answered questions they asked about the nature of life, the theory gained prominence and renown. Once the root question, 'how does evolution actually work?' received an answer in the form of DNA, science became giddy through the blossoming understand of how biology creates life as we know it today.

We were treated to visions of cancer cures, and enhanced abilities and traits, making humankind more powerful and invincible than ever before. Yet in the intervening decades, the sheen has come off of DNA research. We are developing a much clearer picture of the inner workings of evolution, and DNA in particular, every day. What excites scientists today is a refined theory of evolution, a field called 'epigenetics'. The prefix 'epi-' means 'above', and epigenetics refers to action that occurs above the level of genetics. Just as scientists had evidence of evolution before they had a theory to explain it, the initial idea of DNA being a fixed blueprint that destined the individual to a life that was immutable has turned out to be at best, incomplete. As a prime example, look at identical twins. At birth, the DNA of identical twins is, in a word, identical. Yet when we compare their DNA later in life, the more time that has past, the more differences creep into their genes. They obviously are undergoing transformation of their DNA based on experiences and exposures they encounter throughout their life. Recent studies have even shown that DNA is changed in the mother's womb, before birth. Other studies have demonstrated that children adopted into families suffer from the same 'genetic' diseases, and at the same rate, as their new siblings who are biological descendants of Mom and Dad. Clearly this points out that the environment, the methods we learn from our parents to cope with life's challenges, are what lead us to disease, not necessarily our DNA. There are few diseases that are caused by one or two genes, most require a host of changes to occur before the disease manifests in the body. This is why there haven't been the miracle genetic therapies we expected when we began to understand DNA.

The good news is that the control we exercise over our thoughts and our way of interacting with the environment, affects our very DNA and thus our future. Doctors have known for decades that stress, for example, causes disease. Some estimate that 90% of all disease has at least a stress component, even if not caused entirely by stress. Our response to stress, the 'fight-or-flight' response that served us well as we ran from tigers and bears outside our cave, shifts the body's energy away from immune system support and careful reasoned reactions, and into the limbs and emotional centers to encourage us to fight or flee when threats loom before us. But this response was never intended to last our lifetime, day in and day out. Nature intended that we respond, and then relax back into our normal pattern of chemicals, hormones and blood flow. Today, as stress seems about as common as breathing, we can alter our 'destiny' to suffer

from disease by changing how we perceive the world and choosing to react to it in ways that relieve stress or prevent stress from happening in the first place. It's also not necessary to relive through some form of therapy, every childhood trauma that may have 'screwed us up'. Our ways of reacting to each situation are often automatic and based on sub-conscious patterns, but new habits can be developed over time. We can awaken to our knee-jerk reactions, and pause, reflect, and choose different ways to respond and thus change our level of stress and leave our track towards disease.

The bad news is that psychologists tell us that over 90% of our actions are the result of subconscious thought patterns. We live most of our life on autopilot. This means that we often react to new situations in ways that may not be useful, using actions (or inaction) based on whatever situation our subconscious feels is the most similar to this new event. When we hear a new idea, we also tend to reject it out of hand because our subconscious does not like the uncertainty of uncharted waters. How can it keep us safe if it hasn't seen this situation play out before? We all fear change to some degree. When we are confronted with problems unprecedented in mankind's history, though, we must move beyond the initial reaction, the surge of adrenaline that pushes us to run away, to hide from impending danger, our natural tendency to reject the seriousness of the situation, and calmly examine the roots of the problems. We have to know where we are, and where we want to end up, in order to craft solutions that will get us to our goal as quickly and cheaply as possible. We need new solutions to our problems; just making small adjustments or using a bit of tape to cover a blemish, is not sufficient. We need new thinking, and the willingness to do what is necessary for mankind, even if that is not in our own best interests.

The Imperative

Why make a plea for being open-minded or for moving past our habitual, conditioned responses? Here's the reality of our world today: We are being tested by Nature. It is a timed, pass/fail test. And if we don't make serious, and in many cases extreme, changes to our lifestyle in America, we will fail the test before our grandchildren have a chance to come riding to our rescue.

In 2005, several of the most sophisticated computer climate models forecast the effects of climate change as the beginning of the process to write a global protocol to replace the ineffective Kyoto Protocols. An esteemed panel of scientists examined the results of the modeling in 2006, and pronounced that it was clear that humans bear at least *some* blame for global warming. This vindicates scientists from over 200 hundred years before, at the beginning of the Industrial Revolution, who warned that we could not indiscriminately burn fossil fuels and release carbon dioxide and methane into the atmosphere without consequences.

Most Americans, though, have still not acknowledged the depth of the problem. In sad fact, the 'worst case' scenarios of the 2005 modeling are playing out today, and at a rate that not only is increasing, but is increasing faster than the modeling suggested just 4 years ago. Case in point: the most dire predictions for

ice cap melting predicted the fabled Northwest Passage would be ice-free and navigable in 2015. It opened up in the summer of 2007. Two commercial cargo ships, not icebreakers, successfully made the traverse from a Russian Pacific Ocean port to Denmark in September 2009, and according to a report by the United Nations Environment Programme (UNEP), “the two passages have probably not been open simultaneously since before the last ice age some 100,000 years ago”. This was at the peak of the summer melt, even though the melt of summer 2009 was less than in either of the 2 preceding years. The summer melt of 2007 was the most ever seen; an area of land larger than California was exposed to air for the first time in Man’s memory every week for a period of six weeks that summer. Scientists with access to data from U.S. nuclear submarines say that within 5 years (by 2014) the North Pole may be ice-free at some point during the summer.

The UNEP publishes a yearbook to highlight environmental issues each year. The most recent report, from February 2009, paints a distressing picture, with a variety of issues that must be addressed:

- Landfills: in developed countries, each person throws away 1.4 kg (3 lbs) of trash each day. Including plastic and toxic chemicals, the landfills remain for hundreds of years
- Pesticide release: as ice melts, land is deforested and rainfall patterns shift, pesticides once banned are again being released into the environment. Examples include DDT in Antarctica, organic pollutants in the Rocky Mountains (U.S.) and PCBs in the European Union
- Fish: over 90% of the biomass of commercial ocean fish has disappeared in the last 50 years
- Biofuels: Manufacturing 50 billion liters (13 billion gallons) of corn-based biofuel in the U.S. uses 20% of the available water supply, manufacturing 34 billion liters (9 billion gallons) of sugar cane-based biofuel in Brazil uses 8% of the water supply, and manufacturing 20 billion liters (5 billion gallons) of rapeseed-based biofuel in the EU uses 1% of the water supply.
- Soil degradation: modern corporate farming methods, with extensive pesticide and fertilizer use, have degraded the soil on 84% of all farmland worldwide

The report cites 3 areas of critical concern:

- Water: 1.2 billion people today do not have access to clean water, and 2.5 billion do not have in-home sanitation facilities. The report projects that 4 billion people will experience water stress in 2030 due to several factors: the commercialization of water supplies, change in rainfall patterns and location, and lack of water feeding rivers following the disappearance of glaciers. Growing 1 kilogram (kg) of potatoes requires 100 liters of water, 1 kg of rice 4000 liters, and 1 kg of beef 13,000 liters; clearly the food we choose to eat impacts the ability of people to access clean water
- CO₂: increasing levels of CO₂, regardless of the source (man or natural), lead to sea level rise, warming of the average temperature which impacts plant and animal life in every micro-climate, reduction in the ability of trees to remove carbon from the atmosphere, increasing release of methane

(another significant greenhouse gas contributing to global warming) from permafrost melting, and changing weather patterns, rendering farmland unusable.

- Farmland: in 2008 25% of the Earth's surface was used for farming. There are 25 countries that are completely deforested in order to convert the land to farms, and in another 29 countries less than 10% of all forests remain. Forests are being cut down at the rate of 13 million hectares (32 million acres) each year, an area larger than half the United Kingdom. Losing this amount of forest contributes to 17% of the total CO₂ entering the atmosphere this year. Despite this huge impact, deforestation was not mentioned in the Kyoto Protocol. The UN reports that 90% of poor people rely on forests for at least some income.

If you grasp the magnitude about what this picture tells us about the changing climate, you can no longer trade in your car that gets 23 miles per gallon for one that gets 35 miles per gallon and then congratulate yourself for helping save the environment. We are like the person who jumps off of a 50-story building. We fly along just fine, even enjoying ourselves, for 49 floors. It's only that last floor that hurts. I'm here to tell you, we have fallen many, many floors already. That last one is rapidly coming up to meet us. What will we do?

The paradigm shift proposed next focuses on reducing the emission of CO₂ into our atmosphere. Before the Industrial Revolution, the amount of carbon dioxide (CO₂) in the atmosphere was 275 parts per million (ppm). CO₂ allows the Sun's rays to enter the atmosphere and then absorbs heat being reflected away from the Earth before it can radiate into space. It's like the inside of your closed car on a hot summer afternoon; the sunlight comes in through the windows but the heat can't get out, and the interior of your car becomes painfully hot. Historically, we know from examining ice cores that contain trapped bubbles of air from hundreds of thousands of years ago, that the normal range of CO₂ is from 180 ppm to 300 ppm. That change of 120 ppm represents a 6 °C change in average global temperature, or put another way, is the difference between daffodils in the summer in Alaska, and year-round ice in Ohio. The computer climate models suggest that at a level above 350 ppm, life will have some issues but nothing that we can't adjust to, given adequate time and money. The modeling also sets 450 ppm as the upper limit we don't want to cross, because then all bets are off. At that level, climate change is beyond our ability to predict, having no useful past experience to draw on. Today (2009) the CO₂ concentration is at 387 ppm and rising at about 2.5 ppm each year. This means we will be faced with 450 ppm in twenty years, if nothing is done to change what we are doing. Burning coal to generate electricity and heat homes constitutes half the CO₂ emissions each year. China is building a new coal-fired plant every other week. What is unknown and not factored into these estimates, is the affect of melting permafrost and calthrates. Permafrost is peat that has remained constantly frozen in high northern latitudes, for thousands of years. Primarily organic material, as it thaws that material decomposes, releasing methane. Calthrates are ice-like structures on northern sea bottoms that contain as much as 3000 times the methane

currently in our atmosphere This means there is an estimated 400 gigatons of methane locked away in the arctic, for now. As oceans warm, calthrates will melt, releasing their methane. Methane is 20 times more efficient at holding heat radiated from the Earth's surface than CO₂, making it the more dangerous of the greenhouse gases. If we are ever to see 350 ppm again, we must stop using coal by 2030. What is clear though, even if we all get on the bandwagon and make serious changes in how we live our lives, is that the sea level will rise, inundating coastal areas where the majority of humans live. We will be forced to either relocate people living in all major seaports and coastal areas or find a way to dike the ocean, as the Netherlands has done for centuries.

Microclimates are already changing, as the ocean heats up and the typical patterns of wind and rain are altered. Australia is seeing the beginnings of a 'Dust Bowl' like what the U.S. experienced in the 1930s. Drought and high winds prevent farming in areas that are relied upon for production of food, resulting in widespread famine and rising food prices around the world. As drought comes to areas that have built their agriculture around fertile land with adequate annual rainfall, this problem will become much more acute. Water will become even more scarce than today (the UN states that 1.2 billion people lack adequate clean water), as the glaciers disappear and as rain moves into different ranges, removing their yearly contribution from watersheds that rely on river water for the local water supply. The rain will fall in areas unaccustomed to receiving it, and will cause flooding and/or run unused into the ocean. In 2008, we already saw the impact of changing microclimates making farmlands untillable; several countries experienced riots, as people were unable to find or afford even basic food items, such as wheat or rice.

We have seen how our monetary system has fatal flaws that will need to be addressed if we are to enjoy our lives. We consume too much, and borrow too much, and promise to do better just as soon as we get everything that is left on our wish list. Honest we do. We have seen how our economic system fights any actions that may help the environment:

- environmental regulations add cost, and are vigorously opposed
- corporations believe that markets solve problems, markets aren't solving global warming, therefore global warming is not a problem
- the Earth is here for the taking, right?
- we cannot factor long term results into this quarter's balance sheet, therefore it is someone else's problem, to be handled by the next management team (or generation)

We all know that the world would be better off without war, and that there are many changes that could make our political systems work more in alignment with our principles, and to better benefit for all of Mankind. And we feel that we are already 'green' today, meaning that we know we need to recycle and use less plastic, and we look up to those among us who have become early-adopters of hybrid cars, or who have put solar panels on the roof of their home. Often we hesitate to take more action; maybe we fear that there will be short-term pain or cost that we don't want to face, regardless of what the long-term gain may be.

But we still haven't faced the reality that if we don't make the changes that will cap, let alone, reduce the amount of CO₂ in our atmosphere, all these other changes are just window dressing at our funeral. Nature will outlast us, if it comes to that. There will be, after all, life after Man.

No more oil economy

Where is all the CO₂ coming from? Much of it comes from burning fossil fuels: coal to generate electricity and heat homes directly, and gasoline in the internal combustion engines that power most vehicles today. The only thing that is more embedded in our lifestyle than oil, more crucial to everything we do from moment to moment in the modern world, is the oxygen we breathe. It is oil that drives our cars and makes up many of the parts that are used to build our cars. It is oil that gives us the plastics that we package everything in, and to make everything from lighter machinery to clothing, and to make the bags that we bring our food home in. Oil creates a method for shuttling huge amounts of national treasure from one country to another, often even between ideological or pathological enemies. Oil gave rise to the phrase "Better living through chemistry", which, like most advertising, has turned out to be not completely true.

Yet no matter how deeply oil is embedded in our American lifestyle, it must be recognized that this is a choice, not a birthright. Even today, billions of people live without access to this multi-faceted chemical. In 2006, Colin Beavin documented his determination to live with no carbon footprint in a blog, a book, and in 2009, a movie titled "*No Impact Man*". Yes, he experienced difficult decisions, and yes, some aspects of his life seem rather extreme. Yet most people who hear his story realize that adopting a lifestyle that supports life on Earth, rather than threatening it, is not an exercise in futility. It requires conscious living, awareness must be focused on what is available, important and necessary at every moment, and choices must be made consciously, not just by habit or convenience. But living with a zero carbon footprint is compatible with living a larger, more congruent lifestyle.

It is this very notion that oil is embedded in every aspect of our lives today, which makes it such a difficult foe, and such a terrible addiction. Of course, we humans often have difficulty giving up habits that bring us pleasure, even as we intellectually understand these actions are killing us. Witness people who undergo painful lung or throat cancer treatments, yet can't wait to get released from the hospital in order to have their next cigarette. Or people who know that using alcohol or drugs is stealing joy from their lives and yet continue to use the addictive substance. Or the proliferation of large, gas-guzzling car purchases when gas hovers around \$2 per gallon. Nevertheless, oil is an addiction that we must kick if we are to continue any semblance of civil society.

And so, the paradigm shift regarding the environment is this: eliminate CO₂ emissions from coal-burning generating plants by 2020 and gas-powered engines for transportation by 2025. This sounds drastic and impossible, but unless we can have at least a civil discussion about the possibility of meeting

these goals, then you might as well save your time and put this book in the garage sale box. But remember, if the problem of CO₂ is not brought under control by our generation (not the next), you need to have that garage sale soon. Just over half the emissions of CO₂ in America come from coal-fired electricity generation facilities. These plants make almost $\frac{3}{4}$ of the power we use. Nuclear and hydroelectric power plants make the bulk of the rest of the electricity. Clean coal is a misnomer; there is no cost-effective way to remove the CO₂ from the exhaust at coal plants today. If we can't remove it completely, we must find another way to generate power. We are paying the price now for our decades of failing to fund research and development of alternative power sources. As we have had access to cheap oil, and have been able to ignore where it comes from and whom we have to pay to get it, there has been no reason to look into other sources. Still, much of the fundamental research has been completed, and many new products are trickling out of laboratories today. The economic slowdown of 2008/2009 has slowed progress as companies reserve cash for future needs and sales fall. This highlights the need for the government to step in and first, mandate that switch that needs to happen in generating our power, and second, to help fund the research to bring alternative power out of the lab and into large scale production. Solving the issues that are holding back wide-scale production will enable the U.S. to export or license this new technology around the world. Bringing the current technology into mass-production will lower the cost dramatically, and begin to allow incremental improvements in subsequent generations of the products. Building cost-effective and efficient solar power will be a bonanza for all people on Earth, bringing power to even remote locations without the need for purchasing or mining local resources, building huge generation plants or stringing up new large-scale power transmission grids. Today the UN says that 1.6 billion people are not on the grid, they have no access to electricity. Whether due to unstable governments or civil war, not having power decreases the average rural income by 20%. People without power can't refrigerate medications, run medical equipment, pump water or cook without enduring smoke that can cause illness or death. Clearly, getting power to people will greatly improve their standard of living. Most people find that when they place their focus on some problem, they begin quickly to see solutions. If you are thinking of buying a new car, you suddenly notice that car seemingly on every street. If you clean the dust from one bookshelf, suddenly something nearby also looks dusty, even though you hadn't noticed it before. In this same way, conservation is one approach that we can all take in our day-to-day lives to begin to reduce our need for power and thus our carbon footprint, no matter how long it takes to move away from coal. Our political leaders have ridiculed conservation, with the result that our demand for oil has risen 22% since 1990, far exceeding our population growth during those years. Many of the light bulbs in the U.S. have been converted to compact fluorescent bulbs, but that is just the tip of the iceberg (will that phrase have meaning to your great-grandchildren? I can hear it now, "What's an iceberg, Great-Grandpa?"). In this age of instant gratification, leaving the TV on so that one touch of a button on the remote will illuminate the screen forces the TV to

use 90% of the power it uses when it is on, every minute of the day. And the wall rats that are now ubiquitous, those warm black boxes that transform the wall socket power to the type of power used by most electronics, also consume power whether the device is on or not. As we start to move through our home, on the lookout for power being used for no particular purpose, we begin to see all kinds of ways we can lower our power demands. Americans use so much more electricity than any other society on the planet, more than twice what the average person uses in Europe. By 4 am on 2 January, an American has used as much electricity as someone in Tanzania will use the entire year. We can use any incremental decrease to help lower greenhouse gas emissions. It's no longer enough to buy a power-saving refrigerator every 7 years and think we have done our part to save energy.

Much research and development has already gone into replacing the internal combustion engine with some manner of propulsion that doesn't emit greenhouse gases. Major objections to other types of vehicular power are:

- *The limited range of a single charge (electric vehicles) or tank of alternative fuel* Battery technology has always been a major drawback of electric motors, and while that remains the key factor in making electric vehicles competitive in the market, much progress is being made. Currently the lithium-ion batteries used in cars carry a charge sufficient for about 80% of our driving needs. Most people only rarely drive more than 40 miles on a charge, and that level of performance is available today. Using the existing infrastructure for selling gasoline, stations could be converted to replacing your drained battery for one that is fully recharged. This would enable any long trip you may choose to make in your electric car.
- *The cost of battery replacement* As more research and development is done, and as production ramps up, the cost of batteries will inevitably come down. Battery life, the number of times one can be recharged, has already improved greatly that last few years. We also may find ways to allow motors to function at ever-greater levels of discharge. Today, when your laptop battery 'dies', it still contains nearly 90% of its power; it no longer operates the computer because the computer requires a narrow band of power strength in order to function effectively. Tuning engines to accept a wider range of battery power may reduce the need to recharge as often, prolonging battery life. Also, if we choose to use the option mentioned in the previous paragraph to offer swapping stations for batteries, then you wouldn't have to worry about replacing your car's battery, changing out old batteries for new ones would be factored into the price you pay for swapping at the local station.
- *The lack of 'pep' from electric motors* Again, today, not much of an issue. Much research has gone into making the electric motors perform nearly as well as some gas engines, further research will help. Note that 20 years ago, the average 0 – 60 mph time for passenger cars in America was over 14 seconds. We still managed to get where we were going at that speed.

- Today, the average is under 10 seconds, but in city traffic, where the majority of driving takes place, is that extra 4 seconds truly significant?
- *Does it decrease the carbon footprint when coal is generating the electricity used to recharge batteries?* This is probably the hardest question, because if the other paradigm shift, getting off of coal as our source of electricity comes to fruition, then this is a moot point. But between now and then, the impact of generating electricity to charge batteries depends on where you are in the country. If you are in Wyoming, and all of your power comes from coal, then electric vs. gas is pretty much a tie. Nationally, averaging everything out, electric reduces greenhouse gas emissions by about 15%. If you live in California, the state that uses the least amount of coal for generating power, then an electric vehicle saves us about 80% of the emissions.
 - *The lack of infrastructure for refueling stations* Yes, years ago gas stations seemed to be on every corner. Today many have closed. If we switch to alternative fuel sources that come in liquid or gaseous form, various biofuels or natural gas for instance, then a new infrastructure has to be created. Depending on the actual fuel, much of the current system of fueling stations and tanker delivery trucks may be converted to use. But there are electrical outlets nearly everywhere. Other than trading out batteries, there may not be a need for refueling stations.
 - *I can't afford to replace my car now* The average car lasts 17 years in America. And in the interest of recycling, our next topic, it would be fantastic if we didn't have to scrap the old car to convert to alternative power systems, but could instead swap out just the motor. This would decrease the expense greatly. Over the next 15 years, many people will trade out their vehicle, and won't have this issue. Hopefully, having a 15-year warning will allow you to plan ahead and accomplish the changeover without difficulty. Just by switching production completely to electric scooters, and relying on the normal replacement cycle, China now has over 65 million electric scooters in use. If you can't imagine living without a gasoline-powered car, try imagining living without Earth.
 - *Being 'green costs more!* Actually, this appears to be a myth. Much of what businesses do to become 'green' involves conservation, reducing pollution or changing procedures to cut waste. Pollution in many forms is actually waste, when it is release of a chemical that is not part of the final product. Paying for the materials and then leaving some part of them in the environment rather than the product is wasteful and increases costs. Not polluting, then, saves money. Clearly, conserving resources and eliminating waste also mean less money thrown away for no reason.
 - *But, but, but, I REALLY don't want to give up my special lifelong dream car.....* This may be true. You've lovingly cared for that 1967 Mustang, only take it out of the garage on special holidays, and can't everyone have one guilty pleasure? In the short-term too, it will take years to get the research and development generating effective products, to convert the fueling infrastructure if that is required, and to get the new power systems

- manufactured and installed. So for both of these reasons, we need to determine the cost of carbon, that is, how much 'penalty' should there be for emitting greenhouse gases? How much does it cost us to plant trees or use some other method of carbon sequestration, to remove the gases you are putting in the air while using your 'baby'? We can add this fee, a carbon tax, to every gallon of gas sold, and continue to sell gas. Currently in cap-and-trade program planning, the cost of carbon is set at around \$30 per ton of CO₂. That works out to about 30¢ per gallon, not an onerous amount. Still not as good as eliminating emissions altogether, as we still haven't figured out the best way to fix carbon, but certainly this would be an appropriate step to take while we do more work in this area. And before you complain about the cost of gas as taxes on it continue to grow, consider that you are paying about \$28 per gallon for your Starbucks latte.
- *Will the politicians/corporations let us do this?* President Franklin Roosevelt famously said, when he was approached shortly after taking office by an acquaintance and asked to pass a particular law, "I agree. Go and make me." He wasn't being rude, he was stating a useful rule in making change on a national scale: politicians (and corporations) listen to the loud voices. We, the people, need to let our lawmakers know what our priorities are. If we value the planet and want to stop emitting greenhouse gases, we have to open the space around them that lets them take the actions needed to make that happen. Our voices have to be loud enough that none doubt why these laws are being passed. General Motors, responding to criticism that they were still manufacturing large vehicles past the time when they were appropriate, pointed out that when gas prices are low, the American public *wants* big cars. We have to become clear on what is most important, the planet or our SUV, and make decisions that reflect that awareness. We have to let our voices be heard by companies and government alike, only spending our money on products that support the planet and enhance our lives in environmentally safe ways.
 - *But I want to send part of my hard-earned money to Islamic fundamentalists in Saudi Arabia* Well; everyone has their own point of view. Many people are very concerned today about America's 'national security'. First of all, in light of this concern, it doesn't make much sense to send so many American dollars to countries and political regimes outside of America. When oil is priced at \$70 per barrel, America sends \$840 million dollars a day outside the U.S., over \$300 billion a year. America imports 18% of our oil from Africa, and 16% from the Middle East. African nations tend to be one-man dictatorships; our money goes straight into Swiss or Cayman island bank accounts to fund the dictator's post-coup lifestyle. Dictators (indeed, most governments regardless of their particular nature) who receive huge amounts of foreign capital in return for exporting oil, tend to restrict the freedoms and rights of their citizens, rather than instituting democracy as oil companies often claim. They see the easy money flowing in, and their thinking gets to be very short term, rather than

attending to issues that will ensure their people become prosperous while these limited resources are generating income. The easy money breeds greed and corruption, and is never used to fund social programs or education benefiting people. And how do these petrodictators use their easy money, anyway? Middle East exporters, members of OPEC, are led by Saudi Arabia, home of the most fundamental Islamic Salafi sect. Today's Saudi version, called Wahhabi, is a very repressive belief system that espouses an anti-modern, anti-western, anti-female ideology. It is clear that some of our oil money is funneled directly to the very terrorist organizations we fight around the globe. Saudi-funded terrorist groups in Iraq comprise the core of the suicide bombers, for instance. Muslim fundamentalists restrict education to many citizens and fail to include women in their general society as equals. Iran, for example, uses much of its oil revenues to subsidize particular groups, businesses and industries, buying compliance with its policies. Changing these attitudes cannot happen from forces outside the country, however, no matter how desperately we may want them to 'see the light'. Only the collapse of the oil market, the end to easy money from oil, will cause these regimes to begin to change. Also, ranked #4 among our sources of imported oil in July 2009 is Venezuela. Venezuelan president Hugo Chavez has not only made a career of biting the hand that feeds him, without U.S. purchases of oil he'd not be able to fund his government, but he is also the primary instigator in forming a new alliance between South American nations and African nations, intended to pose a counterbalance to northern hemisphere alliances such as NATO. The African leader in the movement, Libyan dictator Qaddafi, even jokingly suggested that the group be called SATO. This is the result of your oil dollars at work. Second of all, wars are constantly fought to claim resources that are found somewhere else, on someone else's territory. For centuries, salt came from salt mines, and wars were continuous as one ruler after another sought to control the profit and the use of this essential resource. Yet once a new method of procuring salt was discovered, salt, while remaining a necessary resource for a pleasant and long life, no longer engendered violence or huge profit margins. We can make oil the 'new salt'.

- *But really, will corporations let us do this, ban gasoline-powered engines?* Well, you may be right. Let's look at this issue from a different perspective, seeing how much the relationship between us, the people, and them, corporate America have in common with an abusive marriage. The abuser in a relationship, typically the husband, becomes increasingly self-centered, expecting their mate to cater to their every whim and craving. As each craving is satisfied, another one arises, the abuser is never satisfied for long. As time goes on, the abuser sees his mate as less and less human, feels less and less connection with them, and feels more and more justified when making his demands. This distancing allows him to avoid feeling guilt for his actions and empathy for his mate's pain. His mate's feelings and needs count for nothing, it is 'all about me'. He can

sleep well at night, and most other people in his life have no idea what he does within the confines of his home. No one on the outside sees any hint of what dysfunction is in play. Yet his needs continue to escalate, always more and more is needed to keep him happy, much as a drug addict develops a tolerance and finds that more and more of the drug of choice is required for the same 'high'. The abuser will not be able to 'see the light' and stop the behavior on their own; outside intervention is nearly always required. This scenario works equally well when we look at corporations relating to society, our American culture relating to Nature, or America relating to the World. Corporations increasingly demand that workers give up rights for the benefit of greater profit. Outsourcing is but the latest development whereby the business need of profit trumps the workers' need to have protection from labor abuse, receive a living wage, and work in safe conditions. Corporations also deny the needs of Nature, feeling entitled to take whatever it deems necessary for profit, and leaving others to deal with the toxic residue, the scarring of the land, and the scarcity of resources. The bottom line is this: you cannot get abusers to stop by asking, pleading, leading, soothing, or persuading. You can only demand, over and over, until the abuse stops, or get some authority figure to intervene. Yes, corporations will do everything they can to prevent this law from being effective. Yes, they will launch massive media campaigns to smear the writers of the laws and to ridicule its supporters. It becomes our job to heed President's Roosevelt's admonition, and to raise such a clamor that the government, the authority figure, steps into the fray and does the right thing, taking the only moral step by preventing the corporations from interfering with this paradigm shift. One last aspect of the abusive relationship is helpful to understand. In nearly every abusive relationship, the person receiving the abuse accepts responsibility for the abuse. They shelter the abuser from detection, they hide their own pain and suffering from the outside world as much as they can. They find it virtually impossible to ask for help, and often even if they do, they recant and return to the abusive relationship as soon as possible. Their own self-image has taken such a beating that they both can't imagine what life would be like without the structure imposed by their abuser, and can't believe that it is the abuser who is causing the pain. They accept the abuser's lies; 'This hurts me more than it hurts you' and 'I'm only doing this to you because of what you did to deserve it'. We ourselves, in this American society, have this same problem. Both as workers for the corporations and as citizens of the culture, we allow the abuse to continue as if it is our own fault. We protect the corporation's right to abuse us, as if we deserve to be punished. We defend the corporation's ability to continue and to even increase the abuse, as if we cannot see any other way of doing business. Miners working in open-pit coal mines are seemingly unable to acknowledge the environmental destruction and the damage to their own health the mining causes. They defend the need to extract coal in this manner, and the rights of the corporation to treat them

badly as they protest increasing the regulation of the mining industry. Getting the authority figure to step in and intervene, asking the government to pass the law banning gas-powered engines for example, is the only way we can break out of these abusive relationships. But we must also see our own complicity and develop the vision that lets us move beyond this tragedy and into a future that holds promise and delight. We must begin to heal our own dysfunction, developed during decades of being kicked around by big business. The Earth is our home, and our situation is abusive. While we may suffer both bondage from within our own psyche and bondage from external sources, we cannot care what others might think; we must do what is right. There is no need to be angry, but we must say 'This must stop'. Taking back the reins of our economy and controlling what is allowed within the competition of the marketplace is critical to our success in transforming our consumption-at-any-cost economy into a green and sustainable future.

- *I think that's totally off-base, you can't compare corporations to abusers and make any sense at all. And I still don't believe corporations will let this happen!* OK. How about another analogy, this time let's look at our culture's addiction to oil. The dictionary definition of addiction is: a compulsive need for, and use of, a habit-forming substance characterized by tolerance and by well-defined physiological symptoms upon withdrawal; broadly : persistent compulsive use of a substance known by the user to be harmful. Oil is definitely a harmful substance, and we have formed such a habit using it that it is inconceivable to think of life without it. Over the time we have been using it widely, actually only 150 years have passed since it began to be used to replace whale oil in lamps in the mid-1800s, our tolerance for it has increased with every passing decade. We find more and more ways to use it in our lives; as fuel, in pesticides, in fertilizers, as plastics, even in drugs. How does this help us frame a response to the question? Let's look at how addicts kick their habit. People manage to stop their addictions in two primary ways; one, they reach the end of their rope, and something in their psyche 'clicks' and they stop using. They tire of how the drug makes them feel, or of dealing with the problems it is causing in their lives, or they see death around the corner and get in touch with their will to live, which proves stronger than the compulsion to use. This group, however, is in the minority of those who manage to leave an addiction behind. The most effective way to become clean is through a process commonly referred to as a '12-step' program. Alcoholics Anonymous was the first such program, though the concepts have been used and adopted by many individuals and organizations in the last 70 years. The initial steps focus on admitting the I, the addict, am powerless to effect the change required to let go of the addiction, and asking that a power greater than myself step in and help me. Then I look at myself and see all my faults, determine where I am today in the depth of my despair, and again ask this higher power to help me fix my problems. Next, I examine how my addiction has affected my

life and those people around me, and if possible, I begin to make amends to those people. Lastly, I continue to monitor myself, to grow in my awareness, and to reach out to others in a similar situation. This is the barest of overviews, and probably many who have successfully used a 12-step program will complain that I have missed the most important part, the part that helped them the most on their journey. But I feel it is useful to see the flow of the program and to apply it to our society's addiction to oil. Yes, we are addicted, and while it is *theoretically* possible that I could limit or eliminate oil in my life, it is certainly true that society needs help to break the cycle. Laws mandating a target date for the end of burning oil for power are essential. The next step, taking an inventory of faults, is happening in our many forms of media all the time, if we but pay attention to the data. It is beyond any doubt that burning oil is fatal to our culture. We must ask all of our institutions for assistance: oil producers, finances, manufacturing, transportation, every aspect of our lives must hear the call and respond to help drive the change to a way of life that works for us and for our Earth. Part of the healing is making amends, or in our case, to do what we can to return the Earth to what it was 200 years ago. Reforesting, fixing carbon, cleaning up toxic spills, these are but a few of the ways we can atone for our indulgences. As we break free from our addiction, we will find our hearts opening to Nature and sensing our connectedness with the whole of Nature in ways we can't imagine today. Breaking down the walls that have transformed Nature into an 'it' that has no needs worthy of our attention will focus our attention on activities we can do to become more in tune with our environment. Stepping off the path will bring Nature back into our lives in the most fantastic ways. What would it mean to do the right thing, not the easy thing? The planet will thank us, the global community will thank us, and our grandchildren will thank us. End our addiction now, please!

Recycling

“If we don't get real, we will wake up one day and say, ‘Oh my, the world's gone. Perhaps it wasn't enough to just recycle. What a shame.’”

Andrew Harvey

The 1968 Apollo 8 photo of the earthrise seen from the Moon was the beginning of the environmental movement. But 40 years later, we consider recycling to be an adequate precaution against environmental degradation. We ignore the fact that we live in a sealed environment, that when you throw something 'away' there is no 'away'. We fail to acknowledge that our consumption habits, developed primarily within the last 60 years, cannot continue. The Earth doesn't have the resources to support the 7 billion people now alive if they begin living like Americans.

And we certainly can do better about our recycling habits. According to the Environmental Protection Agency (EPA), in 2007 only 37% of plastic soda bottles and 28% of plastic milk jugs were recycled. Overall, only 6.8% of all plastic materials were recycled. Over 63 pounds of plastic packaging, per person, found its way into our landfills that year. In 2010, the Royal Society of the United Kingdom predicts that global plastic production will exceed 300 million metric tons. The U.S. represents the epitome of recycling and we don't begin to recycle even half of what we use. Remember the commercial: the plastic water bottle, used just 20 minutes in the meeting, resting forever in the landfill. There are still places in America where entire towns do not recycle.

The cutting edge of the recycle debate now has moved onto the question of 'Paper vs. Plastic'. In some cities, plastic bags at the grocery store have actually been outlawed. Despite the collection boxes outside some stores, very few people actually recycle their grocery bags. But the reality of recycling is this: whenever possible, bring your own. Really, how much longer can we continue getting new plastic bags to carry our food home in, while thinking we are not damaging the environment at the same time? And how many more paper coffee cups will we pitch in the garbage, before we realize that our own ceramic mug or commuter cup works just as well? Taking your own jars and purchasing bulk foods from the grocery store without additional packaging requires very little extra work on your part. Indeed that hardest aspect of using our own bags, cups and jars seems to be the planning required to have the packaging available when we need it.

Perhaps another action we can take is to require that every product sold be labeled highlighting the resources that were used to manufacture it. Much like the labeling that has evolved on our food packaging, we will benefit from knowing not only what raw resources were used, but also how much power and water were needed in the manufacturing process, and the amount of carbon emissions from the transportation needed gather the materials and bring the product to market. Add a tariff to products identified by this technique that are manufactured with 'dirty' power or procedures and imported into our country.

Another source of many greenhouse gas emissions that gets little attention is aviation fuel. Indeed, for most of us, any reductions we make while trying to be 'green' are made virtually meaningless the moment we step on board an airplane. Each flight puts thousands of pounds of CO₂ per passenger into the air. Serious R&D money needs to go into developing alternative fuels or power sources so that we can begin to travel without fueling runaway global warming. Sir Richard Branson, head of Virgin Atlantic among other businesses, has begun a program to replace the usual gas-powered tractors that maneuver jets around the gates at airports with electric ones. As we all begin to look around at our lifestyle with new eyes, we begin to see many actions we take out of habit that can be modified to benefit us all. In the short term, companies are springing up that attempt to plant forests to fix carbon, and they use the funds provided by passengers who are attempting to be responsible for their carbon emissions for their work. One company is offering a calculator on the website of the San Francisco International Airport to calculate how much it will cost to offset the

carbon from your flight. A roundtrip flight from San Francisco to New York City emits over 3,824 pounds of CO₂ per passenger, which costs over \$22 to sequester at current rates, for example.

We must continue to question every aspect of our consumption patterns, asking 'can this product be purchased with less packaging?' or 'do I need this product, could something else do the job instead?' In 2009, Honolulu, Hawaii entered into a contract with a company that will sort through its trash. What can't be pulled for recycling or reuse will then be compacted into 3-ton blocks, wrapped in plastic, and shipped 2700 miles to Washington state where it will end up in a landfill.

They expect to ship 100,000 tons each year. Lucky for Honolulu, it could find someone to take its trash. Unlucky for Earth, though, that there is so much room being taken up with trash. Honolulu's problem is the result of being on a finite piece of land, and it is easy for all of us to mistakenly think that Earth is infinite. Truth is, when you throw something 'away', there is no 'away'.

We must question even the concept of recycling. Better than transporting materials all over the land and eventually using energy to separate parts, melt parts, clean parts and make new consumable products, is reusing or repairing what we already have. Designing products that are modular, so that key components can be upgraded or repaired (the batteries, CPU and memory on your laptop, for example) enables the bulk of the product to continue to be of service while maintaining a state-of-the-art tool. Making items quickly biodegradable, eating utensils for instance, can reduce the amount of trash in landfills. If a plate can be biodegradable into fertilizer, that would be even better. Taking our own cups to coffee shops and bags to retail and food stores is just the beginning of moving beyond the attitude that as long as it is recycled, that makes everything OK.

Watch any science show on television today, or read a science-oriented magazine, and you are likely to come across a story about someone engineering a new vehicle, new building, or a new power source that is green and sustainable. The fact that we rely on coal for electricity, gasoline for cars and plastic for packaging is only because we have not found the will to force big business to change how it operates. More and more, municipalities are resorting to facilities that sort through all garbage collected, separating out the recyclable and the reusable from the trash before sending the remainder to their local landfill.

Electronic waste, primarily computers and TVs or monitors, poses a particular problem. Ewaste contains both precious metals, valuable and often in short supply, and toxic materials that can leach into water supplies if carelessly thrown away. In an issue of true cost pricing, the cost of disposal of these items should be part of the purchase price, so that when the item needs to be thrown out, it can be returned to the manufacturer for proper handling. What is the usual handling today, of the ewaste that is recycled rather than thrown in landfills? Often it is shipped out of the country. It ends up in huge landfills overseas, where the local population is ignorant to the dangers it poses, or where poor people break the cases open with hand tools, without personal protective gear, and attempt to retrieve the valuable metals inside. The health affects are unknown to

these poor people, who often sicken and die after a short time in what is for all intents and purposes, a new kind of 'mine'. We cannot continue to act as though there is 'no problem' and let others clean up after us. We must get a handle on the problem of ewaste and find environmentally friendly ways of coping with it.

New Approaches

Any new paradigm shift in how we cope with meeting our needs as a society could benefit from looking at what has served Nature well in the past.

"People think all we need to fix our predicament is a free source of energy, but I think we need to change our behaviors. More energy would just help up deplete the world's lifeblood faster. We all need to become students of a teacher who's been here much longer than we have. There's no time for untested technologies that may not be a fit for the Earth. We've got to use technologies that have already been tested by nature herself." Janine Benyus, author of "*Biomimicry: Innovation Inspired by Nature*"

In an interview published in *The Sun* magazine September 2009 issue, she points to these recent discoveries and inventions:

- Look to the local ecosystem to see how nature has adapted to available weather and resources; in Phoenix for example, build buildings that are pleated and self-shading, just as the indigenous cactus plant. In an area with monsoon rains, incorporate horizontal elements in the foundations, like plants often do.
- Rather than use high pressure and high heat to catalyze chemical reactions, observe how nature accomplishes the same reactions at room temperature.
- Copy a beetle in the Namib Desert, the *Stenocara* beetle. It collects tiny bits of water from the air using wings that have water-repellant sides and water-attracting tips and merges them into a drop it then drinks. Use a similar, energy-free method to remove water from air before drawing it into air conditioners, as it takes less energy to cool dry air.
- A company, Aquaporin in Denmark, is designing a water filter inspired by the water-shuttling pores in red blood cells. This will allow desalinization without requiring energy or pressure.
- Some bacteria gather metals for their metabolism. Specifically, some target iron, mercury or gold. You can create a specific chelator and gather trace metals together into usable amounts. We already use bacteria to remove many toxins from water and soil.
- The lotus leaf uses tiny 'nanobumps' that allow dust to only lightly adhere to the surface. This allows rain to effectively 'wash' the leaf. Similar 'nanobumps' are already incorporated into paint, roofing tiles, glass, fabrics and cement, creating surfaces that seem to wash themselves.
- Nearly 8% of global CO₂ emissions come from producing cement. A company in Canada is using an enzyme, which removes CO₂ when a mammal breathes, to remove CO₂ from smokestacks of plants making the cement. The CO₂ is turned into limestone, the main ingredient in concrete.
- The humpback whale flipper is being used to design wind turbine blades.

- Using a film based on the eye of a moth, which traps light so the moth cannot be seen by predators, solar cells are becoming more efficient, losing less available sunlight to reflection.
- A new kind of gas diffuser, based on the branching patterns of leaves and trees, increases power in fuel cells by 16%.
- A company is making an ocean energy harvester based on the way giant kelp anchors itself against the tide. The same company is making a tidal energy generator based on the tail of a tuna.
- A company is designing a 'smart grid' that allows appliances within a neighborhood to coordinate power usage throughout the day to lower peak demand, and the system is based on how swarms of bees operate.
- Native Alaskans still hunt [for as long as they can] like polar bears, crawling across [what little] ice [remains] [comments in brackets, not by Ms. Benyus]
- An insect has a substance we call 'resilin' in its wings. As the wing flaps down, resilin compresses and stores up to 98% of the energy, allowing the wing to rise without the insect expending energy.

Let's develop solar energy by instituting policies that encourage research and development of alternative fuel systems and battery technology, enabling us to stop relying on resources that are extracted from other countries. As long as it is possible for gas prices to fall below \$2 a gallon, there is little incentive to invest heavily in alternative sources. Obviously, just doing the right thing by limiting our dependence on foreign oil or becoming environmentally friendly is not enough to provide adequate funding. Instead, let's set a floor on gas prices of \$4.50 per gallon. The difference between the actual price of gas and the \$4.50 floor would be used to subsidize existing energy projects or for research. Consider it a tax on carbon. This would enable investors to be assured of a reasonable return on their investment, and would let the market competition drive future research efforts. Some research projects are underway today. New methods of generating electricity range from coal-fired plants that have zero emissions, literally no 'smoke' rising from a smokestack with all CO₂ being trapped underground, to mini hydrogen power plants that fit under your kitchen sink and separate water into its constituent parts and use the hydrogen in fuel cells. This removes the need for having a hydrogen distribution system, much like gas stations today, yet makes hydrogen a viable alternative to solar power and gasoline. The bottom line is this: we can solve our power problems, if the funding is available for research and for jumpstarting new manufacturing systems. Getting systems into mass-production allows for incremental improvements over successive product generations. That is faster and better than waiting until the product is perfect. When we are finally able to produce clean, sustainable and inexpensive power, that technology will be exportable around the world. In particular, localized sources, whether installed on your roof or under the kitchen sink, will be especially appropriate in countries that lack a large power transmission infrastructure. Many countries were unable to build the telephone network needed to place phones in every home. In the most recent decade, most of these

countries have discovered cell phone technology, and will never build a wired telephone system. Similarly, we may be able to bring green power to everyone on the planet, without having to wire every house or hut to a grid.

There remains a good deal that can be done to meet our energy needs with conservation. Over 40% of the power used in the U.S. is used in buildings, for heat and light. Great progress has been made converting light bulbs to compact fluorescents, but lighting is just a fraction of the overall usage in our homes. The bulk of our power goes into heating and cooling appliances. Better insulation alone could save us 30% of our current usage. Conservation efforts have been ridiculed and stymied before, but usually by those who stand to gain from the continued sale of electricity and natural gas. We know that waste is always costly and inefficient, and heating or cooling buildings is no different. Leaving lights on, whether in your bedroom or your office in the 30-story building where you work, when you're not there is waste. Computer control, infrared sensors, and motion detectors all increase our ability to heat, cool and light our spaces effectively and to limit the waste of power. Connecting the climate control centers of every building in the neighborhood allows for coordination so that not every air conditioner runs at the same time, and other appliances that have some amount of discretion in their need for power can work with each other and limit the maximum amount of power required throughout the various day parts. Do you work in a large company or a large office? Suggest that someone be appointed the 'Energy Officer', charged with looking into the company's purchasing, power and supply usage, and power costs. Reducing waste, purchasing products that are more environmentally friendly, and examining how shifting power usage to different day parts might save the company money, are all ways to work towards a better environment. Having someone specifically tasked with looking at the overall picture often produces better results than we might see if we adopt a department- or cubicle-level perspective on the problem. Replacing gas-powered taxis with hybrids or electric vehicles can have impact, and these days, taxi drivers prefer to drive them, as the price of gas has been so volatile. But as we currently use 420 million gallons of oil globally per hour, it will take a lot of conservation, and time and dollars to build out the solar power system, to replace our current thirst for oil.

Since the 1973/74 oil price spikes, energy use per person in California remains flat, while the usage by the rest of the U.S. is up over 50%. This is the result of an aggressive attitude that mandated higher state efficiency standards for cars and appliances than required at the national level. California has also benefited from using more renewable energy sources and natural gas than other states, resulting in far lower greenhouse gas emissions and less pollution.

In yet another attempt to co-opt the green movement and to offer up a solution that benefits corporations at the expense of the people and the environment, we now face the prospect of instituting a system for trading the ability to pollute. Commonly called cap-and-trade, the idea is to allow businesses to generate a certain amount of pollution each year. If a business manages to make less than its allotment, it can sell the unused right to pollute to another company that was not as successful. This smoke-and-mirrors concept merely diverts attention away

from the core issue, from the agreement that pollution must stop. The fact that a company would be able to 'beat' its quota demonstrates that when the incentive is great enough, goals can be met. Cap-and-trade delays meaningful and lasting change, which we cannot afford at this time. It has been tried in Europe, and it quickly became obvious that the system was ripe for manipulation. Companies applied for special exemptions and it was difficult to manage. We need to cap pollution, not allow a whole new market to develop that sustains the current system.

The American Diet

We all know what kind of food to expect on the menu of an Italian restaurant, or an Indian restaurant, or a Chinese restaurant. It tends to be the same whether you find the restaurant in America or in Thailand, or Argentina. But outside the U.S., what is the primary entrée on the menu of the American restaurant? Steak. Red meat. Much is made of the health benefits from eating a 'Mediterranean' diet, or the low incidence of heart disease in countries with a fish-based diet, like Japan. Is eating steak or ground beef every day healthy? Most doctors will tell you 'No!'

And not only is eating so much red meat bad for our own bodies, it is also very hard on the planet. Nearly 40% of the greenhouse gas emissions are methane. A primary source of methane is the digestive system of cows, with each cow producing 600 pounds of methane a day. Also, meat production in America requires 7.5 million gallons of water *per second*. Cows are fed grain, usually corn, in order to fatten them up for the meat market. Their digestive systems, however, are designed to eat grasses. The subsequent ill-health of cows raised for beef requires the use of large amounts of antibiotics, the residue of which remain in the meat and are consequently part of our own diet. Again to get more meat to market quicker, many cows are dosed with growth hormones, which can linger not only in the meat but also be excreted in the cow's milk. One major concern about global warming, the large-scale deforestation happening in the Third World, is often driven by the need for land to grow grain for cows, or to create grazing land. The burning of forests not only contributes nearly 20% of the CO₂ emissions each year, but also removes trees that are a vital component of Nature's own carbon sequestration system.

Leaving aside the more spiritual arguments about killing sentient beings for food, and the point of view that modern slaughterhouses cause the release of a flood of hormones due to the cow's fear, for the sake of the planet we must consider at least limiting our consumption of meat to a few times a week or to only consuming beef from cows that have been raised grazing on their natural diet. Likewise, poultry farms have been widely denounced for their inhumane conditions, packing thousands of chickens in cages so small they are unable even to turn around, and the large dosages of antibiotics and growth hormones. If fish is your meat of choice, you must own up to the fact that more than 75% of the fishing grounds have been emptied of life, and over 90% of the biomass of

commercially useful fish have already been taken. Please note, in 2009 U.S. Geologic Survey scientists tested fish in 291 American waterways and found every single sample contained mercury, and that over 25% of the fish exceeded the EPA's mercury limit for human consumption. In yet another example of how our environmental ways have drastically interfered with fish, here's information provided in 2009 by the Pacific Fishery Management Council:

Last year (2008) only 66,286 adult salmon returned to the Sacramento River to spawn, only the second time in 16 years that the number of fall run Chinook salmon failed to meet the council's goal of between 122,000 and 180,000 adult fish. Six years ago, the peak return was 13 times higher. [And 20 years ago, there were too many salmon in the river to count.]

The entire fishing industry is on the verge of extinction itself.

In 2009, a nationwide survey shows that only 3.5% of Americans refer to themselves as vegetarian to any degree. We know intellectually that eating less red meat will help us, yet we like it (because we have been conditioned to expect it on our plate) and we wonder if we can truly have any impact by changing our diet. The answer is, 'Yes, you can have an impact!' If you can't see your way to making the change for your own health, the planet needs you to step up and do the right thing.

We also have become accustomed to eating fresh fruits and vegetables any time of year. The ability to cheaply transport produce long distance has enabled many more people to comfortably live in climates with short growing seasons. In an extreme example of how we feel entitled to eat whatever and whenever we want, the news network CNN gave an elderly couple their 7 seconds of fame less than 48 hours after Hurricane Wilma pummeled Florida in October 2005. They said, "Where's our help? *We haven't had fresh lettuce in nearly 2 days!*" We not only look to our government for food and housing following natural disasters, we expect it to keep the price of fuel low so that our local grocery store can maintain a stock of every vegetable, every day, all year long, no matter what happens. We complain when prices double in the winter, ignoring that the source of tomatoes may be a nearby farm in August, California in October, and Mexico in February. Asking your grocer, or the folks at the local Farmer's Market, about the source of the products they sell allows us to become more connected with our food chain. We can make better decisions and spend our money supporting local farmers, and limit the damage to the environment done in the name of year-round tomatoes and other foods. It will be more expensive, in terms of dollars spent on our part, but it is necessary if we are to have air fit to breathe, rainfall somewhat normal, healthy fish in local rivers and water clean enough to drink.

Our Hesitancy to Act

Whether you agree with any of the proposals described in this book or not, you must agree that our 21st century lifestyle cannot continue as 'business as usual' or you would have thrown this book into a recycle bin long ago. Besides simply encouraging you to discuss your own ideas with how we can change our

approach to life with friends and family, it may be helpful to look at some of the reasons why we fail to take the action necessary to effect change. Seeing the edge of the cliff approaching at breakneck speed, why do we sit quietly by?

- *Inertia*: What is the law of physics, an object at rest will stay at rest unless acted upon by an outside force? So often, throughout our history, we have quietly walked into gas chambers because we were allowed to believe it was a bathroom. It is easier to go along than to resist, and especially to resist a force that appears bigger than ourselves. We honor the heroes who stand up amidst the hail of bullets and somehow manage to turn the tide of battle, but we are loath to be that person ourselves. Can't we just go about our busy-ness, think good thoughts, and rejoice when someone else solves these massive problems?
- *Disbelief*: Even today, in 2009, there are people who say nothing needs to be done; that politics will always be politics, that the economy just needs some more regulation and that corporations really do have the people's interests at heart, that it's perfectly fine to borrow more to buy more, that our national security relies upon our having a physical, intimidating presence in countries around the world and that even nuclear weapons may someday be required, and that climate change is some half-baked theory that hasn't been proven, just like evolution. Unlike California Governor Arnold Schwarzenegger, who said, 'If 98 doctors tell me my son is ill and needs medication, and 2 say he's fine, my son is taking the medication', these people insist everything is fine, that drastic changes need not be made. It is always hard to prepare for an event you don't believe to be possible, even when someone warns you it's coming. The science isn't unsettled, it's unsettling.
- *TV dominates our role models*: And who controls the message on TV? The corporations who have a vested interest in more of the same. TV provides our expectations and our aspirations, showing us a life we can hope to be a part of constructed entirely from someone's dream world. If a TV show questions global warming, then why should I worry? If the TV shows me new products that will change my life, I check to see which credit card to use and rush out to buy it. Talking heads tell us what to think, and we fall into our many roles accordingly. Are you a Republican? Then it becomes more important that President Obama fail than that there be a compromise on health care solutions. Are you a Democrat? Then you can't be seen as being soft on national security by voting against a military funding request. The debate is confined to what a nameless TV producer feels will generate 'buzz' or controversy, and viewers, and therefore profit from advertising.
- *Separation*: If we see ourselves as connected to the Universe, we find the actions of civilization and corporations abhorrent. As long as we accept the perspective that my individual small self is not part of a larger whole, then life becomes a battle focusing on survival at the cost of anyone or anything that gets in my way. Society becomes a mechanism to dominate

the territory, pushing aside native people, animals and plants to service its needs. If I am separate, then force becomes my solution to every problem. If Nature is getting out of control, sea levels are rising, rainfall patterns are changing, droughts are destroying farmland, and then more force will fix the problem. We will just have to force the oceans to stay off the land, force the rains to fall where we need them, force the farmland to survive by taking water from one region and piping it somewhere else. Someone else can do it. We have the technology. Or so we believe.

- *Separation, take 2:* Seeing ourselves as separate also allows us to compartmentalize our lives, and see ourselves within a limiting envelope of existence. For instance, we see ourselves as the roles we play; lover, worker, friend, teammate, parent, or child, to name a few. We also see ourselves as 'good' and by extension, the group to which we belong is also good. As a corporate executive, I cannot see that what the business requires me to do might be 'bad'. I follow orders and, if necessary, erect walls that allow me to overlook the pain and suffering these orders will cause. My religion becomes 'the only path to salvation'. My political party becomes the only hope for our government to manifest our core values. No one else, not part of our group, can have an opinion or take an action that is 'good'.
- *Inability to see our personal impact on climate:* Nothing I can do will make a difference; I'm only one in nearly 7 billion. Besides, I recycle some stuff, I bought a car that gets 5 mpg more than my last one, and I've changed out most of my light bulbs for compact fluorescents (except for the 7 that are on dimmer switches, which I like a lot). I'm doing all I can.
- *Inability to see our personal impact on others:* Role Model? Me? My friends don't care what I think or say or do. My family already agrees with me. I alone can't make a difference within our larger society, or so we tell ourselves. We want to believe that the world is fair, that even if injustice happens, the rule of law will eventually succeed in righting the wrong. We feel that the system will eventually work, that it's essentially sound, and nothing more is required of me to effect change. We do what we can without going spending much money or energy, and hope it will all turn out OK in the end.
- *Inability to see its impact on me:* Like workers who don some protective gear and then handle or dispense toxic chemicals (pesticides, fertilizers, and cleansers for example) I trust that the 'system' will protect me. The government, with its regulations, its agencies and its concern for individual rights, will not let anything bad happen to me.
- *Our entanglement within the system:* Do you really think the corporations are going to let these changes happen? And if not, what happens then? I can't imagine the apocalypse that faces us, if our food supply is destroyed by toxic fertilizers and drought or floods, if our coastal cities are flooded by rising seas, if hurricanes strike in the northern latitudes instead of just along the tropical coasts, if the foreign investors who have been buying up our government bonds should refuse to fund our deficit spending, if the

derivatives market should crash and every bank should be suddenly insolvent, if rebellions were to overthrow several African dictatorships and disrupt the production of oil, if a terrorist group managed to set off a nuclear device and either decimate an American city or cause an electromagnetic pulse that fries all electronics in America. There are too many ways I depend on things staying exactly as they are for me to live my own life, I can't imagine the local grocery store being out of food, the local gas station being out of gas or the local ATM being out of cash. I don't know how to grow my own food, find clean water that's not from a tap, or defend what little food I do grow from my starving neighbors. I need this system to continue to function or I will die. How can I step away from money?

- *Man was given Dominion over the Earth in the Bible or Man is biologically driven to enslave the weak:* Born of separation, these ideas allow violence, greed, waste and hatred to flourish, in direct disregard of the true nature of reality. Most indigenous populations throughout time were able to live sustainably within their ecosystems, for thousands and even tens of thousands of years. They did this not by hating the land, or being greedy and wasteful of its resources; they did it by listening to the needs of all parts of existence, and being good neighbors. The indigenous populations that failed suffered primarily from their inability to adapt to a change in the local microclimate or through overpopulation that exceeded the ability of the ecosystem to provide adequate resources. Both of these failure modes are in play today.
- *Dreams of prosperity:* I just want the chance to buy a new car, a new home, to retire at 55 and travel the world, to lay on a beach in the Caribbean and drink margaritas... in other words, I want more than I have right now, and these problems are getting in my way.
- *Mind your own business:* It's none of my business, the policies and procedures that are causing the problems. Corporations don't want me to take it upon myself to instigate change. Laws exist, and more will be enacted if they prove to be insufficient, that enthrone business as more important than people or animals or land. Slaves can't question the Master. Change may only begin at the top and then it flows down the hierarchy, not the other direction.
- *Feelings of overwhelm:* Enough with the problems, already! I'm tired of hearing, problem this, fix that, what will we do about that over there, this will kill us all.... I've got my own problems and sorrows to deal with. Just leave me alone so I can watch TV after a hard day at the office.
- *The sinful shouldn't throw stones:* What's important is not what's gone, but what still remains. What's important is not what's gone on, but what still remains to be done. We haven't the time right now for recriminations or pointing fingers. We have problems to solve no matter who caused them. It doesn't matter what any of us have done, or continue to do, as long as we face what is required of us to solve these issues and begin to act in ways that support the Earth rather than destroy it, and one another.

- *A belief in Band-aids:* But we don't really need to radically *change* everything, we can add a few regulations here, we can tax that, we can offer a subsidy for some new enterprise, and small changes will add up over time. No need to panic.

In his book, "*Hot, Flat and Crowded*", Robert Friedman writes:

"Our addiction to oil makes global warming warmer, petrodictators stronger, clean air dirtier, poor people poorer, democratic governments weaker and radical terrorists richer. *Have I left anything out?*"

It's OK to disagree with the proposals in this book, but it is not OK to think that life will be great in 50 years without drastic, radical change. We are even running out of time to 'do research' and to come up with comprehensive plans. We will deal (or not) with what Nature presents us either in a piecemeal fashion, as each emergency arises, or we will make changes in how we relate to our world in fundamental, proactive ways. Inaction is a recipe for disaster and death. Please talk about these issues and do *something*.

Challenge: Spirituality

We have examined how we might change our relationship with others through economics and politics, and our relationship with the universe through the environment. Now let's turn our attention inside, to see how we might change our relationship to 'all that is' through spirituality.

Everyone wants inner peace and to feel love for, and from, family and friends. But if you ask everyone you know, you will find that most are far from feeling love and peace. What about you? Do you feel at peace with what you've accomplished in your life? Do you pause and bask in the love that pervades the Universe? Do you look forward to tomorrow because you know it will bring joy and equanimity? Or does the future beckon with bills you don't know how you will pay? Is it fraught with fear of the bad news the next email or phone call may bring? Is it an empty pit of loneliness, or a rut of unintended boredom? People who are truly happy know their purpose, are focused on their heart's goal, are fearless about pursuing justice for all, and relentlessly spread love among all they encounter. Does this sound like someone you'd like to be?

We all can use some guidance from time to time, a reminder of what's important and a nudge towards making the changes in attitude and action that will bring us closer to our goal of equanimity. We enjoy learning when the topic is pertinent to our lives. We welcome change when it brings us more peace and love. But too often, we wait for this growth to overtake us or fall into our laps. It's easier to watch one of the 500 satellite channels, or level up in World of Warcraft than to volunteer at the local food bank or donate blood at the Red Cross Blood Center. I hope this book can serve as a reminder of what is important in your life, and urge you to focus on what is important every minute throughout your day. As we explore these issues, search your heart for answers that are true for you, not what you think others want to hear. It may be helpful to journal about the questions being posed, or you may find that having a trusted partner who is open and willing to discuss these questions with you will help you clarify your thinking and feelings.

Many sense a change in global consciousness approaching. Religion as we know it gave structure and meaning to life throughout the current paradigm. As our worldview changes, as our growth in consciousness brings new awareness that we are not separate from each other or our Universe, the old paradigm is being replaced by a new spirituality that recognizes this reality. Not a religion per se, this new spirituality will complement the consciousness that recognizes our connection with all that is. It will guide us to find our purpose, our heart's goal, and to grow into this new paradigm of consciousness.

2020 Vision asks that you manifest the change you want to see, that you be a role model. New solutions to our problems are required, and that can only come from a new way of thinking and a new understanding of reality. In turn, this leads to a new spirituality, one that speaks to inclusion and awakening to Truth. We can all contribute our vision to see the birth of this new way of being, if we open our hearts and set our goal. Craft the future you want to see not only for yourself

but for loved ones and mankind as well. Change starts now, and change begins with us.

Let's set the stage for this discussion by first looking at how we arrived at this unique point in time. As our understanding of the history of the universe increases, we see an ever-changing, constantly evolving trend towards greater awareness, creativity and complexity. There was an initial 'Big Bang' that started the whole thing. Then about 9 billion years later, there was the beginning of something new: life. This was a second 'big bang'. After another 4 billion years, and barely 50,000 years ago, man ushered into existence creativity, arguably a third 'big bang'. For the last several thousand years, Man has become more and more aware of the universe around him, and his place within it. The Buddha, 2500 years ago, was one of the first to articulate the idea that our sense of individual 'self' was wrong, that each person is actually connected to the universal energy that permeates everything, that underlies all reality. He offered the notion that once we connect with that part of ourselves, once we acknowledge that we are but one aspect of All-that-is, we become blissful, we touch eternity and perfection, we become 'enlightened'.

Understand, please, the harshness of life even as recently as 200 or 300 years ago. Any individual, save a *very few* philosophers or kings, didn't have the luxury to spend any time thinking about this. If you were lucky, you could draw on the work of those within a small, 20 or 30-mile radius for your food. If it wasn't grown or slaughtered nearby, there was no transportation system that could bring it to you reliably. Some lived close to caravan or trade routes, and had small and relatively expensive portions of foods, goods or spices available from time to time at market, but on the whole, if you didn't grow it, you didn't eat it. Your day-to-day living focused on your next meal, and how to pay the tax to the local power structure so that you could continue to live. Personal security was never far from your thoughts; life was brutal, to be frank. Few lived beyond what we now call middle age. The promise, as offered by the Buddha, of bliss and escape from the harsh reality of what passed for life on Earth was sufficient to get many to try to emulate what the Buddha embodied.

Another enlightened being, Jesus of Nazareth, presented a different perspective on what was (probably) the same vision. Focusing on love for God and love for oneself, and service to others flowing from this love, he offered a vision of a heaven where life was beautiful and the problems of earthly existence dissolved away. He understood the same oneness as the Buddha; he expressed it differently because of the culture in which he lived at the time he preached. He didn't 'know how' to perform miracles, to turn water into wine, to walk on water, to heal the sick or raise the dead. But he grasped that if he surrendered control to the universal energy, allowed the creativity of God to flow through him, and acted as a channel for Spirit, then miracles would happen. He saw only the perfection that is the core of every person's being, refusing to see dis-ease. People become enlightened, even if only for a moment, when they can open to Spirit.

Less so in Buddhism, more so in Christianity, the ideas professed by these two awakened men have been corrupted through the succeeding two millennia by a few who use religion as a means to control the population. Please note, that

when these religions were formed, mankind was 1500 years away (or more) from truly knowing the Earth is round, that scientific inquiry might lead to a better understanding of reality, and that communication could be more than a oral story handed down through the generations or a hand-copied book written in a language understood by a few thousand people at best.

Jump to today. A few people are coming to realize that 'enlightenment' as depicted through the ages is not the end game, not the goal of existence. If we step back and look at the history of the universe and of life as I have crudely sketched it here, we see an evolution, a progression of steps that lead to more and more awareness of the true nature of reality. Science today, especially quantum physics, is increasingly demonstrating that crude Newtonian physics are not the whole picture, indeed, that concept may be entirely wrong. Recent experiments show that *awareness* is pivotal in determining the nature of some (if not all) energy, and even whether something exists or not. Initially, just a few decades ago, this property of matter was believed to affect only the smallest of the small, but with each passing year, the scale it is seen to affect grows. There is even credible evidence today that awareness affects energy on our human scale. If science tells us that awareness is crucial in existence, and religion tells us the same thing, shouldn't we begin to examine how our own awareness is affecting our life?

The problem with 'enlightenment' as depicted by the Buddha as eternal bliss and relief from suffering, and 'eternal life' as expressed by Jesus as heaven, is that both concepts are the 'end product'. There is no development of what comes next, once you are enlightened or once you have gone to heaven, other than eternal perfection. Nothing wrong with that, eh? But is it reasonable to think that evolution would forge ahead for billions of years, becoming more and more complex, creative and aware, only to stop at enlightenment? Imagine if we use enlightenment as a tool, if we awaken to an awareness of true reality, and allow creativity to generate new ideas, allow the universal energy to grow and change in ways we can't dream today. There is no end to the ways the universe could evolve, could expand, could develop to support us.

This leads some of us to suspect we are on the cusp of the fourth 'big bang', conscious awareness. This would place both ego and enlightenment in our toolbox, as Man awakens to his True Nature. We sense that Man has not yet graduated to adulthood. Indeed, in the great span of time, Man has been creative for just a blink of an eye. How can we assume that we are anywhere near our full potential? A caterpillar lives its whole life, on the ground, climbing stalks, watching the world and making assumptions that enable it to survive. Yet the time comes one day, when it must die to that world and to that perspective; when it must enter a cocoon. It emerges from that cocoon a butterfly, able to see the Universe from an entirely new perspective that it could never have imagined. Life is totally transformed; no longer does the caterpillar climb stalks, it flies and interacts with the world using brand new assumptions. It fills an entirely different niche in the Universe; it connects with the energy field in ways it could not have even dreamed of as a caterpillar. Is it possible that as Man awakens to a new way of being the first three chapters of this book could become meaningless and

unnecessary? Could we transcend the intermediate stages of coping and struggling to craft solutions, and instead completely transform our relationship with the Universe and begin to feed and support the life that surrounds us, instead of destroying it?

We humans today, living in the developed world, for the most part have lives of luxury and privilege unimaginable just 200 years ago. We, for the first time in man's history, have access to all the great wisdom traditions. I can tap into the flow of information we call the Internet and read communications from hundreds (or thousands) of enlightened beings. I do not fear that I will starve because rain ruins my crop. I am not afraid that a wild animal will attack me while I traverse the ground in front of my hut. I understand, more than any generation before me, the true nature of the universe.

And what is my 'True Nature'? The biggest issue I face today, arguably, is getting past my own sense of separate self. I use the term 'ego' here, not meaning ego in the sense of Freud, but rather the construct that exists in my brain that tries to control me, to protect me from harm. My ego sees separation, there is an 'I' which is not connected to, or part of, everything else around me. My ego has to keep me safe. My ego receives billions of bits of data every second from my various senses, and has to sort from that pile bits to bring into my conscious awareness. As a result, the vast majority of information I could use about my situation fall away unnoticed. The ego must rely on tricks to ensure my survival, tricks such as acting out of habit, without conscious thought. If a situation presents itself that appears similar to one I've handled in the past, why re-invent the wheel? Why not take the same action I did last time? And if I do give it a moment's thought, the ego would have me look into the future and imagine the possible outcomes, especially the ones that may harm me, or look into the past to remember any pain or sadness that happened last time. You see, the ego is all about remembering, limiting my options, and worrying about potential futures that may or may not occur. As long as the ego is front and center in my awareness, I will not be paying attention to what is happening *right now*.

When did you ever do anything in the future? When have you ever been able to go back and change the past? Everything you have ever done, you have done *Now*. I am not saying don't listen to your ego. I am not saying don't plan ahead, or look back on how things have gone in the past. What I *am* saying, is use the ego as a tool. Let it do what it is good for, but understand that *you are not your ego*.

So, what are you? For one thing, you are connected to Spirit or God, or whatever name you choose to place on the universal energy field that underlies all of reality. If you go deep within yourself, peeling away layer after layer of awareness, ego and structure, eventually you come to a place, many people sense it is within their 'heart', where you and I are the same. Not identical, but a small part of the One that is All. We are just a manifestation of that energy. That energy appears to want to see itself, and so we have been created to give it eyes.

Let me tell you a brief story about a current, awakened teacher. Eckhart Tolle (author of 'A New Earth' which speaks in depth about living in the Now) at one

point not long ago was terribly depressed. He reached a point where he became suicidal. He thought to himself, 'I can't live with me anymore'. Then it dawned on him; 'there must be two of me, one who can't be lived with, and one who can't stand to live with me.' This was his moment of enlightenment. The one who can't stand 'to live with me' is what many in this world call 'The Witness'. It is Spirit watching everything that goes on through your eyes and other senses. As your ego throws thoughts upon the screen of your mind, there is a part of you that watches, always silent, it just watches. Meditation is about quieting the ego's chatter, stepping away from the sense that the ego is all there is to 'me', and touching the awareness that is The Witness. This is our direct communication link to all that is, to God or the Divine.

This is the crux of the matter, because if you touch God, if you surrender your will and control to God in each moment and allow God to tell you what to do next, you will always do what is perfect for the moment. God is already perfect and can't tell you anything else. You will perform miracles, if that is what God wants. Let me ask, would you rather have the future that your ego plans out for you, or one that God plans for you? Many people react to this question vehemently, demanding that they be allowed 'free will'. What is free will, but a perspective that only exists in one who is separate from the whole? And a word of warning, unless you cultivate your connection to God through regular practice, you can easily hear the voice of your ego and think you are listening to God.

If you are like most people today, you are constantly preoccupied with thoughts of the future and the past. Welcome to the ego. I am trying to convey the notion that you are not that ego, that you are something far greater: a channel that allows God to manifest in this world. "Enlightenment" as we have known it is incomplete, it is truly just another tool in our kit. Once we can touch that space, once we know without doubt that surrendering our control to Spirit is the goal of our existence, we can enter that blissful state as needed. We can use the ego to its best advantage, without believing that it defines who we are. And we live in this moment, watching the leaf that waves on the tree as we pass by (there is God saying 'pay attention to this moment!'), feeling love for the universe, giving as we can to those around us, acting as an agent of evolution by ushering in this new awareness of the truth of our existence.

Please note, that while I advocate what has been termed the 'Direct Path' to God, meaning that no intermediary is required for you to know God, I also do not denigrate any specific religion. I care not which beliefs you hold, nor how you practice your beliefs, as long as you afford me the same privilege. What I do want to stress, however, is that no matter what spiritual beliefs you hold, *now is the time to practice them*. God, and Mankind, needs you to show up, every minute, as your authentic, unique self, role modeling your connection to God. We can bear no less, in these troubling times.

Correlate Science with Religion

Could it be that we are *connected* to every aspect of the Universe,
not the *center* of it?

In the last few decades, much of our new understanding of the universe has come from the field of quantum physics. The Founding Fathers, many of whom were descendents of people who fled England to escape religious persecution, instilled a separation of church and state into the core of American politics and culture. This belief underlies everything we do in America today.

Using the yardstick of evolutionary time, science has been part of our overall understanding for just the blink of an eye. For most of our cultural history, religion established the context through which we managed the world and the events that happened to us. The biggest difference that science provided, compared to religion, was its insistence that any perceived explanation of what was occurring had to be proven, in replicable fashion, and with all possible variables controlled. Religion on the other hand, relied upon faith, belief without proof, and required that one turn over the power to explain the world to the few literate priests or shamans without questioning their pronouncements. The advent of the scientific method set science against religion as a competing method to explain our existence on this planet, in this universe. There has been nothing but tension between these two perspectives ever since.

Granted, there are many people who hold to both science and religion. But there are many aspects of life in which the fixed dogma of science and religion cannot be easily, or even possibly, reconciled. Those who hold to both, find they must compartmentalize each and assign each responsibility for coping with certain aspects of life. It is not possible to believe both in the story of Creation as literally detailed in the Old Testament, and evolution, at the same time. One must find a way to explain away the conflict, to be able to hold to the tenets of both science and religion. The Buddha offered a different approach, one that may resonate with Westerners. He repeatedly said to his students, 'this is my experience. You must go within your self and ask if it is also your experience.' He refused to create a figure to worship; instead he offered to be a role model. He denied many requests to create dogma and offered exploration and wakefulness in its stead. Arguably, in the succeeding 2500 years, much of his teaching has been adapted to fit Man's need to feel in control. Buddhism is sometimes practiced in ways that do not follow his approach.

But the discoveries of quantum physics offer some hope that at least science and spirituality might one day be reconciled. There are two big differences that make this possible. One pertains to the science: this new way of perceiving reality shows us that everything and everyone is connected in ways we did not understand before. We can begin to grasp what it means when science shows us that atoms are 99.99% space, containing with very little actual matter. This makes the seemingly solid barriers, such as we seem to perceive between our skin and the outside world, are actually extremely porous and nearly arbitrary boundaries. Most of the molecules in our bodies are water. We take in water primarily by drinking and eating and we lose water through various means, breathing, sweating and elimination. Seen from one perspective, water flows from the 'outside' environment into us and back out again, and the water that is held within my own body this moment possibly was in your body a few days ago.

You have actually breathed at least one molecule of oxygen that was also breathed by Jesus, in your lifetime. Quantum physics has shown us that matter is energy with potential, not necessarily something solid, until it is observed. It demonstrates that atoms can be 'entangled', meaning that one can be separate from its partner by millions of miles, and yet communicate instantaneously. All of these new perspectives have developed in recent years and show us how everything is ultimately interconnected, and everything is but energy made manifest for some (short) period of time.

Truth in action, not just lip service

To love God is to let God see through your eyes, because there is something God can see through you that God cannot see through any other eyes. It is to clean the doors of perception, to allow God to see, perceive and reflect through me. This also means that we each must find our unique self, our unique gifts and perspective, in order for God to experience completeness. It's not 'just about me', our path is to become part of the whole for the benefit of God. We have to move beyond the selfish, self-centered ease that pervades life in the twenty-first century and do the hard work of awakening to reality and controlling our egos and integrating our shadow not to make our own life easier or 'better', but because God demands it of us for God's sake.

This concept speaks to another aspect of evolutionary enlightenment that is just beginning to be discussed. For thousands of years, as people have pursued enlightenment, it has been seen as something that was very personal, very focused just on me, myself, for the benefit of my eternal soul. Though some Buddhists have taken the 'Bodhisattva Vow', promising to work unceasingly until all sentient beings experience enlightenment, for the majority of spiritual seekers, getting to heaven or nirvana was all about 'me'. And when we are faced with confronting habitual behaviors, with having to address those aspects of ourselves that we despise (such as our feelings of envy, greed, hatred, and jealousy), with having to make sacrifices for the good of humanity that just don't feel easy (or even doable), we naturally tend towards procrastination; we put off making the changes we know will be necessary to live a more fulfilling life, because it takes too much energy or won't feel as good.

It may well be that in order to make the effort, to expend the required energy and use the proper diligence to remake our lifestyle into one that supports our spiritual beliefs and avoids most (or all) harm to the planet, we need to focus on helping some entity outside our self. We may need to dedicate our lives to serving God, or a broader global community, rather than our own pleasure or enlightenment. We may need to focus on our stewardship of Earth for our great-grandchildren, in order to take the painful steps needed to stop using gasoline in our vehicles. Many will find it easier to endure the hardships of introspection and

mindfulness if these deprivations are seen as necessary for the good of a being or beings larger than our own small self.

Only you can answer the call of Spirit to be present in every moment, in a way that shows the world what you stand for and what you desire. Act on the beliefs you hold dear. Demonstrate what is important to you, not what is the easiest path. Question your motives and habits, and discard those that no longer serve you or our collective interests. Speak truth. Drop your roles and interact with others and with the Universe from within your authentic and unique self. Let your light shine, a beacon to everyone else that speaks your truth that we may learn from your understanding.

We Are One

“I am part of the whole, all of which is governed by nature.
....I am intimately related to all the parts, which are of the same kind as myself. If I remember these two things, I cannot be discontented with anything that arises out of the whole, because I am connected to the whole.”

The Meditations of Marcus Aurelius, written in the 1st century A.D.

You may be having a difficult time with the concept that ‘We Are One’. We were raised to believe that matter is solid, and that we have control over some portion of our environment. Some of us are groomed for leadership positions, at work or within society, further perpetuating the myth that we can control anything. Many of us were also taught to judge; to judge other people, to judge situations, and most of all, to judge ourselves. If matter is solid, and we have control over others and events, and we can judge someone to be wrong and ourselves to be right, then the phrase ‘We Are One’ does not make sense.

As science peels away the layers of the structure of matter, it is becoming clear that the Universe is ultimately an energy flux, and there are no distinct separations between one part and another. String theory and quantum physics both describe a Universe that is just a continuous flow of energy at its most fundamental level.

Does it serve us to ignore this ultimate reality? If we are separate beings, we are subject to feelings of pride and control, and we draw comparisons between other separate entities and then make judgments about what we see. We criticize ourselves needlessly if we don’t conform to certain standards, usually set by those who seek to control us. We assume that people or events are ‘good’ or ‘evil’ and suffer when ‘evil’ enters our lives. We fear being ‘alone’, because we fear the loss of love, or the loss of connection to those we cherish. We suffer when events happen that we believe are our fault, either by inaction or incorrect action. We suffer when events happen to us that we don’t understand or desire. None of these outcomes engenders feelings of love and connection with the Universal energy.

Yet all of these emotions and thoughts are not the ultimate truth of reality. We can see the glass as half full or half empty. We can limit our emotions to those that we have habitually used, without giving a thought to whether a different emotion might be more useful. When we are cut off on the freeway, we can react with a variety of emotions, some helpful and some not. There is no inherent or required emotion at that moment; we can be angry or loving, impatient or calm. No one can hurt me; only I can hurt myself with what I choose to believe to be true in this moment. And that means that I can stop the pain, no matter the situation, by questioning the truth of what I believe that is causing the pain. When we want to believe a particular thought or emotion, we look for any evidence we can find that proves it to be true. We will ignore evidence to the contrary; we are only interested in being 'right'. Our subconscious mind will even join the search, screening the inputs from our senses, looking for proof that our ego is right.

In her book, *"I Need Your Love – Is That True?"* Byron Katie writes,

"You think that because there are two separate bodies, as it appears, there are two separate minds. Without the stressful thoughts that separate us from one another, there is only one mind and it's everywhere. Bodies can't be connected, you can only connect with your own mind, and it encompasses her and all of us. Connection can only be made from inside you. You can't connect with her. There's no point in trying, because you're already connected. You can only connect with yourself and come to see how that connects you with her.

Only you can kick yourself out of paradise. So if you are Adam and you look to Eve for completion, you have just kicked yourself out of paradise. You could just experience your own nature, which is to love yourself; and therefore her, with no separation. But if you want something from her, if you think you need her love or approval, you suffer. There's only one way I can use you to complete me, and that is if I judge you..."

What I see in others is just a reflection of my self. If I am especially irritated by something you do, it is because I know I am capable of doing it too, and I don't like it. Similarly, if I see qualities in you that I love about myself, I begin to love you. This is all based in separation, however. I am already complete within myself, as you are also, we just get lost because our culture and society operate on the level of our egos, not our oneness. Ultimately, if I love myself and see love inside me, I will see love in everyone around me. I am not dependent on gaining anyone else's love; I only have to see it in myself. Besides, even if you did love me, I would discount that love because I know you are 'in love' with the image, the role, that I have presented to you, and not my true, authentic self.

When I have a thought, 'I always screw up' for instance, I need to stop and question it. Is it true? Am I 100% sure it's true, or could there actually be a different 'truth' that I can see here? Of course, I can see there might be other beliefs I could have about myself, like 'Sometimes I screw up'. How do I live my life when I believe this to be true? Do I balk at taking action because of this fear of failure? Might some actions actually turn out OK and lead to greater happiness if I were to take them? Do I suffer with feelings of inadequacy because I believe this is true? And how would my life be different, if I chose not to believe this?

Would I do more things, have more fun, be a happier person, contribute more to my network of friends and family? Lastly, what are some other ways to view this belief, to change it? For instance, how would my life be if instead I believed, 'I never screw up' or 'I sometimes screw up'?

This method is what Byron Katie calls 'The Work'. It is a useful tool for anyone who would like to begin to question the beliefs that are the foundation of the worldview that determines so much of how we feel about our lives. Real change can happen in not only how life approaches us, but also how we react to events and enjoy ourselves no matter what is happening around us if we practice this inquiry into our beliefs.

How does this translate into my daily life? I begin to understand that I can't control what happens to me, only my reactions to life's experiences. Did I just lock my keys in the car? I can stay calm, refusing to beat myself up for doing a 'dumb' thing, and allow life to show me new ways of handling this situation. Is my belief that only a locksmith will solve the issue, or that I must now break out a window and pay money to replace the glass? Is the rest of my day ruined as I continue to stew about this unfortunate error of mine? What good might there be, now that my keys are locked inside the car? Might I meet new people, people who are helpful and concerned about me? Even the worst of tragedies, can often bring about new perspectives or opportunities that can change a life forever and for the better.

Ask yourself: How would my perspective on life, and the goals I set, be different if I were able to act as if 'We Are One'? Would I become vegetarian? Would I apologize to someone instead of angrily criticizing something they said about me that might be true? Would I make amends to someone I hurt years (or moments) ago? Would I forgive someone who hurt me, rather than carry a grudge that poisons my well-being? Would I make different decisions about my career if I felt closer to everyone I meet? Would I stop chasing ever-increasing consumption, and work for liberty, justice and equality for all beings instead?

"If you want others to be happy, practice compassion. If you want to be happy, practice compassion."

The Dalai Lama

In the final analysis, life is only about embodying our Highest Self as we connect with Spirit and manifest It in this realm. There is no greater task than this. An integral part of the path that builds our ability to accomplish this is waking up to Truth. We must constantly focus our attention, and ask ourselves, 'what important feelings am I keeping outside my awareness?'. It is critical that we become aware not only of the parts of ourselves that we have hidden away out of shame or fear, but that we also open our heart to hear the whispers of God directing our actions. It is not the work of the ego we are doing, rather it is our offering of service in support of our connection to all beings.

Our path involves letting go of ego, letting go of that which we are not. We identify habits and reactions that no longer serve us well, that shield us too much or in inappropriate ways, and we release ourselves from continuing to be dominated by these habits. We don't need to worry or focus on making changes that will last forever, we only need to get through this moment with our new choices. We learn to take a breath and choose our reaction to what is happening *right now*. The famous twelve-step programs have built their success partly on this idea that we can only deal with what is happening now, taking life one moment at a time.

When you embody the Highest Self, your attitude as you set about your work says to the Universe, 'I offer my service to the Divine. I give it freely and without need for recognition, for the Divine to do with it what it will.' We don't pray for relief or riches, instead we ask the Source to use us as its instrument, to increase the Universal flow of energy and love. In oft-quoted words, we ask that 'Thy will be done.'

We become a conduit through which Spirit works. We begin living our life, not practicing at life, or waiting for a life to show itself to us, or planning to somehow live a better life months or years from now. We show up and live the life that is present in this moment, the one that is presenting itself to be lived through us. At every turn, we have the ability to choose to be aware. Examine your behavior, activities, thoughts and emotions: you can literally open your brain into new combinations, patterns and ways of viewing the world.

Ask yourself each morning: What's the greatest ideal of myself that I can be today? How would a great person think? How would they feel? How would they not think? How would they not act? How would they not be? Who would they forgive, who would they love, what would they change in their life? What could I do differently to express my own greater self?

Afterword

“We can either predict the worst – that no change is possible – and not act, in which case we guarantee there will be no change. Or we can understand that change is always possible, even in the face of great odds, and act on that assumption, which creates the possibility of progress.”

Noam Chomsky

There is a truism in writing that says I must frame my arguments in positive terms, or else my readers will be put off and ignore the sense of what I write. But I fear that our civilization, as it has grown and expanded, as it has evolved such a great sense of entitlement, slowly, over generations, is like the proverbial lobster in the pot of cold water. As the heat rises, the water gets warmer and warmer, and the lobster doesn't realize its being cooked until it is too late.

My friends, we are lobsters in a pot of our own making.

If you picture our situation as being like the *Titanic*, we have already hit the iceberg, yet people continue to dance to the music of the band and to line up at the buffet.

Here's another analogy, a butterfly on the limb of a giant redwood tree. Here's a tree that lives in some instances, more than two thousand years, and a butterfly that often lives just 48 hours. If you ask the butterfly, 'Is this tree upon which you rest alive?' it would answer, "Obviously not! I've sat here nearly my entire life and it hasn't moved or changed one bit!"

My friends, we are but butterflies, unable to see life in everything around us. We may accept intellectually that everything changes, but our decisions show that we really believe life will go on tomorrow in the same manner as it is unfolding today. Imagine for a moment, you are magically transported 100 years in the future. What world do you see? Obviously, it is one that is very different from today. Do you believe that today's problems have been solved? If so, solved how and by whom? And if not, why not? And what does your answer tell you about the actions you need to take now, in this moment?

Can you look your great-great-grandchild in his or her eyes, and be proud of what our generation is doing to help solve Earth's problems? What do you tell them, about the CO2 emissions that melted the ice caps? How do you answer their questions about the mass extinctions that happened on our watch? Why were so many nuclear weapons manufactured, despite our fervent hope that they would not be used? Why did we borrow so much, and buy so much, using up all the Earth's resources? How could we possibly have thought it was acceptable behavior to push so many problems off onto future generations, because it was inconvenient to deal with them and satisfy shareholders at the same time, bankrupting not only ourselves but the very future we now confront? And worst of all, what do you say when your descendant asks, 'What did you do, Great-great-Grandparent, to save the planet, to help us?' Remind me why we are not using any and all means necessary to stop killing our planet.

We have been conditioned to be polite, to not question the powerful and the lawful, though we have slowly allowed all the power to gravitate to, and all the law to protect, the richest among us. We lurk silently in the depths of the pot,

ignoring the rising temperature, hopeful that those above us who hold the power will make sure some cold water finds its way to us soon. We trust without question, that someone else is working to solve the problems of ever-warmer water, and we wait. We are deaf to the warnings a few others call out from time to time, and we ignore the deaths around us, always trusting that someone else will save us.

We imagine that the land upon which we build our homes will always be as it is today; that trees will not grow and bust the building's foundations, that the nearby river will not seek a new bed or flood from the occasional 'storm of the century', that a lightning-caused wildfire, following years of drought, will not burn us out. We believe that our grandchildren will pay for our Social Security. We trust that the EPA will keep our water clean, and that there will always be salmon to eat, and cod. We flick the light switch in the evening and don't question the miracle of electricity at our fingertips, or the coal that was consumed or the CO2 that will now infect the atmosphere for 100 years, in order to make it.

And at the same time, we ignore the signs of dysfunction that surround us. Because of economics, or religion, or tradition, we ignore crimes of rape, we ignore child prostitution, we ignore refugees forced to flee oppression and famine, we ignore that dams destroy ecosystems and the fish, animals and plants that need the river in all its cycles, we ignore that our own *individual* consumption of resources and burning of fossil fuels is destroying Earth. The *Nature Neuroscience Reviews* published an article describing a new awareness about birds that has been discovered by avian experts. They describe how, "Nearly everything written in anatomy textbooks about the brains of birds is wrong. The avian brain is complex, flexible and inventive as any other mammalian brain." According to Dr. Peter Marler, this realization that birds are intelligent is part of a revolution. He says, "I think that birds are going to replace the white rat as the favored subject for studying functional neuroanatomy." Let me get this straight, we realize that birds are actually sentient, intelligent complex creatures, and our first inclination is to torture them? Again entitlement, the sense that Nature is there for our taking and for our use, remains our standard operating procedure.

It is painful to change, and it is difficult to find the motivation to change just for ourselves. We are social animals; we live to communicate our joy and creativity with others. We act from habit, in ways that have kept us alive for generations, without questioning why. Our brains use power that's equivalent to the small light bulb inside our refrigerator, about 20 watts. We don't have lots of extra juice to use processing new and different ways of acting, so we keep on doing the same things day after day. But we must step away from our entrenched agendas; oil companies and their belief in profit at any cost, conservatives with their fear of more government regulation, liberals with their reluctance to challenge the status quo. We must focus on what is happening and find new and innovative strategies to address the key issues of our day.

I hope these few shifts in thinking that I have proposed have caused you to question the life we have all taken for granted. Life doesn't have to be this way; indeed, it can't continue to be this way. Clean power will define our health, our

economy and our security in the decades ahead. Here I appeal to greed: Clean power will be the Mother of all markets. The Rockefellers and the Morgans saw opportunity in the early stages of the Industrial Revolution in America. Bill Gates saw the opportunity at the start of the Information Revolution. Who will be the next one to seize these new opportunities? Here I appeal to nationalism: in 1997, 40% of all global solar manufacturing took place inside the U.S. yet by 2007 it had fallen to 8%. Maybe the next dominant player on the world's economic stage won't be American.

We can take control of our institutions and by opening them up, adding transparency, and directing them to serve us as we (and Earth) need to be served, we can solve the issues that we face, and move into the next 100 years with a chance to survive. We must move past the social silence that prevents us from questioning authority, and begin to speak within our own social network of the changes we want to see to the status quo. We must open our eyes and ears to the plight of life all around us, and ask ourselves, 'How am I contributing to this suffering, and how can I change my lifestyle to help?'

We must begin to climb out of the pot.

And finally, pick your favorite tagline:

- Dismantle globally, renew locally
- CHANGE OR DIE!
- Change leaders, not light bulbs
- We are the people we have been waiting for

Email your choice, and any questions or comments, to derek@year2020vision.us