

Note about the enclosed draft of GardenWorld - a better future
Its Economy, Politics and Philosophy And the character of the people

Doug Carmichael

Most climate change discussions (and related problems) discuss what has gone wrong and how we got here, but little about the goal beyond either return to business as normal, or survival. I drafted the enclosed to try to develop the discussion of what should be the goal of new activity in politics and the economy, starting with the idea that we need to rethink society and nature, especially around the forms of agriculture and surrounding habitat, and add the aesthetics of greening. Let's the use of the land to grow food and people. The idea of Gardenworld is to articulate that goal.

Briefly, my background, last ten years advisor to George Soros's Institute for New Economic Thinking. Physics at Caltech, post doc Harvard Center for Cognitive Studies, to Mexico to study psychoanalysis with Erich Fromm, faculty UC Santa Cruz, Washington DC, Institute for Policy Studies, years of consulting with organizations on strategy.

GardenWorld - a better future

Its Economy, Politics and Philosophy
And the character of the people

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The economy is doing well
but society is doing badly.
There are alternatives.

Things must change in order to change

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Chapter 1. Gardenworld - overview.

Integrating humans with the earth and building an attractive future we can work toward through difficult times.

We need to be realistic about how to get through the crisis, and what to do as it subsides to a new regime. I see this primarily as seeking a critical path, as proposed by Bucky Fuller. It means a goal and means to get there, knowing that it can't be engineered - designed to specifications - because too much will be emergent. But we can learn to ask - given whatever is happening now, what can we do to move toward gardenworld? Biodiversity in Gardens, parks, agriculture, architecture, always thinking about how this helps people and how it is attractive and makes strategic sense.

In our intuition we know we are victims and the cause of these problems. We are facing many simultaneous challenges, and not responding very well. The context for this book is the near general collapse we are now in - climate heating, population, migrations, weakness of governments, failure to distribute the benefits of society. This is the dilemma. Doing nothing will have a bad end and yet all the adequate proposals to actually do something are also grim. We need what in boating is called jettisoning: throwing overboard unneeded stuff in order to keep afloat. We need to explore the real possibilities of what to jettison.

We need an image of what to work towards even if we are struggling for survival. Current social frameworks are not up to the tasks. Capitalism is too exploitative. Socialism feels like deadening bureaucracy. The primary needs for humanity are growing food, a place to live and developing meaning. How do we create the conditions for such a society? We know there will be a post crisis world. Let's build for it. The world's poor are closer to the earth and have learned how to cope with scarcity. We, the one percent, or ten percent, actually need to learn from them. For us the idea of living in nature was replaced with the idea of living in history. We have forgotten who we are. We treat democracy as a

simple system of rules, but it actually is revolutionary - and we dropped the urgency and became complacent

Gardenworld is a more localizable, aesthetic, cooperative approach to growing food in gardens of delight with local experimentation with Gardenworld as the attractive goal.

Proposed solutions, such as sequestration, solar panels, nuclear power, vegetarianism, with good intent, all take too much time and require time and expense to manufacture and deploy to scale such solutions. We need better thinking. Economics 2500 years ago in Athens meant considering all the factors of good Estate management. The well managed estate produces a surplus. For what purpose? For the Greeks the surplus meant free time for philosophy and politics. Our current surplus goes to increasing population and more consumption without reflection on the consequences. We desperately need a new sense of managing our current globalized estate for the good of humans because the current operations of society have led to the emerging The greek "economy" contains *nomos* which, before it became a general abstract term meaning law, originally in pre classical Greek meant equal distribution.

We are acting as though we can prevent the triggering of climate change, but the cause is already in the past. Once the gun is fired we can only deal with the consequences. Repeatedly humans have chosen hierarchy, slavery, war and alienation of the people from their leadership. We have relied too long on a mix of technology, free markets, banks, representative government and media - and the result is a serious failure. Can we, with common sense, a beautiful earth, technology, cooperation, and care, do better? It is economy, poliitics and cimate toegther.

A simple example : many women, living alone with a few children, with poor jobs, taking full responsibility for the children, act on the best of values but receive no support from the government nor the culture, or perhaps food stamps, for their effort, and end up with the children gone and a meager social security. Since they did not work at W@ jobs, but "worked" at home uncompeneated, find themselves wih \$600 in social security ad 400 rent in a dilapidated apartment, surrounded by pollution and traffic and all to often crime. Internet is

unaffordable. These are dignified and painful lonely lives. Where is a reasonable society? Around the world poverty is leaching out the humanness and capacity for supporting their own deeply ethical inclinations. It is hard to think about climate change except as an increase in despair- especially concern for their children. There is no easy way for these people to be citizens.

But even the rest of the people are not acting on what they know because they have no idea what to do. Cutting fossil fuel use means something like no flying, no heating with gas, threats to food supply, the closing down of jobs that are part of the old economy. The cascading effects — inability to pay mortgages, collapse of banks - will follow. Same with food. . We might need to revisit the impact of the 1400's where about half the population was lost. To transition, we will still have to pass through a painful costly bottleneck, with heating, migrations, mafias, wars. It is not crazy to stay in a leaky canoe if you do not have an alternative canoe. Keeping alive some form of hope that is realistic, not delusional with too much belief in the viability of the status quo, requires that we have a vision that, unlikely, is still possible and worth waking up for. We might need to revisit the impact of the 1400's where about half the population was lost. To transition, we will still have to pass through a painful costly bottleneck, with heating, migrations, mafias, wars. Keeping alive some form of hope requires that we have a vision that, unlikely, is still possible and worth waking up for.

We later civilizations, we too know we are vulnerable - Paul Valery 1899.

So far as I am aware, there is no plausible scenario of action which get us from the current moment through the necessary cut in fossil fuels without stopping much of the economy. The cascading effects - loss of jobs, inability to pay mortgages, collapse of banks - follows. Same with food. If we stop fossil fuel use, no food deliveries. I would love to see more scenarios that remain plausible after critical thinking. All technical solutions require time, and their manufacturing and deployment would use old technologies amplifying the co2 mess. This seems to me to disqualify technical solutions. Many people hold on to the hope that technical solutions are possible because fundamentally they don't want to have to change. I actually think serious change, which will be necessary

anyway, as policy or as brute fact of collapse, could take us toward a more attractive world.

I am for decentralized small garden communities for growing food and people with wise use of what remains and the possibilities of technology, of which the Internet is one, though it is dependent on grids that may not survive.. To get there we will still have to pass through a painful costly bottleneck, with heating, migrations, mafias, wars. But still, let's keep working toward the best we can plausibly imagine and save as much of the environment for those communities and their people as we can.

Gardenworld is a project whose time has come. Gardenworld may be the most practical framework for responding because the primary need for humanity will be food, and meaning - yes. People will try to understand what is happening and need a goal. There will be a post crisis world. Lets build for it. The mantra here is ecological restoration and true labor saving technology which enhances distribution, no longer narrowing it.

Economy began with the domestication of herds and the awareness of the complexities of the production of new heads of cattle. Who owns it? Relation to the community and the land, what can be done with it? The very word Capital comes from the Latin Cap, head, as in new head of cattle. Managing that increase in the herd suggests that human history can be seen as the expansion and complexification of that original herd management. How does that relate to the reality of our economy now - and its disarray?? We have moved from tribes to empires and on to the nation states and globalization, giving us the city and the country, and a quality of life. I think it helps to see the sweep from cattle to the current world situation as a single line of development. We are taught to see this line as a series of technically driven transformations and discontinuities, but at the same time there is continuity of elites across all transformations.

Gardenworld is an attempt to get out of the trap of this history.

This means consciously mixing architecture, landscaping, agriculture, and institutions - all with the goal of successful human living across the life cycle with an excellent quality of life. I am calling this effort Gardenworld.

Gardenworld is not a plan but an intent, a guide, a series of ideas to guide future

efforts.

We should start with humans. Who are we anyhow? So, I will be discussing design criteria -What is the nature of human beings and of being human and the implications for the kind of world that not only grows food but grows people.

As we move through the 21st century, we need to struggle to bring the human, as the design criteria, back into the center of design and policy. – John Carl Warnecke.

Western thinkers made a mistake in searching out how humans are different from animals. The ways we are similar are much more important. We are mammals. We are compassionate. We care for our young. Our emotional life is important to us - in generating meaning and providing food for the arts.

To help us think through to such a world the following discussion in the next chapters of the book is helpful

- Where are we?
- How did we get here?
- What can happen?
- What should we do?

The core idea is that Gardenworld, with its flexibility and invitation to local innovations, is a plausible world to:

- Maintain as much as possible as we go through the worst of climate change.
- Have a goal in mind that most people can say yes to, a goal that give guidance to every act.

To get there we need

- New economics
- New politics
- New philosophy

This project for me started twenty years ago as GardenWorld Politics, I just wanted a nicer world. But then I started a series of notes to colleagues about economics and its relation to climate change. I was sorry to judge myself as deaf to implications, when I heard about climate warming and CO₂ in a seminar in La Jolla in 1984, and ignored what I heard, like so many others, for three decades. I saw this world, based on lots of travel and living three years in Mexico, as doing badly while economists were misleading with claims about “increasing per capita GDP” and “lower mortality rates.” My casual research turned more serious. Gardenworld is a kind of studio to think through what can happen now and how we should act.

We want a way of integrating humans with the earth. This requires deep study of the earth and human nature. Human nature developed from our primate and mammalian past. Defining humans by how we are different from animals is a mistake, Our common capacity for raising each other with care and compassion is much more important. The question is, how do we design an approach to society that honors that deep core. The popularity of youtube videos of animals caring, even across species, and playfulness is probably because they remind us of our better selves.

The earth is more fragile than we were taught in school where it was mostly assumed as a constant stage on which we could live the dram of our lives without worrying about the stage itself. Strong languaged and well thought thru approaches, such as Theodore Roszak’s *The Voice of the Earth* started movements like Eco-psychology.

“So my article of faith is that at a very deep level the human psyche is grafted to the planet out of which we evolve, that there is what I call an ecological unconscious. Now whenever we invoke the unconscious, the depths of the unconscious, what we’re essentially doing is pursuing a philosophical discussion of human nature. We’re asking what makes people tick, what are the foundations of human behavior?”

Theodore Roszak

Psychoanalysts like Erik Erikson and Erich Fromm provide important guidance on who we are. Erikson, in his *Childhood and Society*, looked at the human life cycle and the social needs to support the growing child and parents throughout their life cycles. Fromm, in his *Escape From Freedom and Sane Society* thought through the needs for a healthy humanity at the adult level.

We got here from hunter gatherers who were forced by leaders under pressure from increasing populations, to domesticate, after a hundred thousand years of resistance to settlement. Life inside the settlements from the beginning was less healthy and more programmed. The early walled societies broke down social relationships around the fire - song, stories, and a spirit of sharing, and replaced it with constant war, regimentation, and slavery.

The path from early settlements to now usually seen as a series of phases, where transitions were caused by new technologies: the stirrup, the bow, the horse, the catapult, explosives, and on. But for our purposes it is better to see the path from past to present as one complex emergent pattern. While technologies developed, the same elite remained in control across apparent transformations. Points long the way include the breakdown of empires and a shift to feudalism, the emergence of craft and trade, the taking of profit into new colonization and industrialization. Now we are coping with financialization and massive inequality. Along the way the French Revolution failed to find justice that used society to create quality of life for all, but rather led to Napoleon. Fossil fuels were discovered and society took a leap upward in population and the production of stuff. The result, instead of the benefits advertising and politicians promised, we get an overheating atmosphere and world wide despair.

To avoid 2 degrees and stay below it, we probably need draconian moves. Remember, the agreed upon "goal" is zero carbon. For example, if somehow we mandated no fossil fuel heating of homes and offices we would get a slow cascade of chaos. Or no gas for food deliveries. The population would be on the edge of starvation in 48 hours. All forced to cope. Without such a nudge, it is likely that we keep drifting.

If everyone got the idea that food is the major requirement, what might emerge? We take care of nature so nature can take care of us. If we don't we lose

and nature goes her way. The idea of gardenworld is that we take the economic and aesthetic sides of our every move into account. Gardenworld is where humanity began and where we need to go. Food, community, culture. This is going to be hard. Everyone is needed. It is clear that if we are to stay under 2 degrees every job in society, every project, needs to be rethought. It probably means a smaller economy. But possibly

We can have growth without development, and development without growth - Aristotle.

We don't want a plan but an intent that guides our acts and imagination, - not constraints but opening to new possibilities. Plans tend to be rigid and we desperately need flexibility and not fragile system likely to fail. In thinking through what to do I am proposing that we think of the economy as moving toward a new approach to economy, away from consumerism and toward Gardenworld where the stuff we see in front of us is stuff we grew more than stuff we bought.

People will need to be included, and redeployed away from consumption and pollution to relationships, art, and intense common sense - which means lots of effort into meeting basic needs. We were dependent on an energy regime that is going to be gone. My thinking is that most current (2019)energy discussion still moves at the level of policy in the abstract without any consideration of implementation at the concrete level of the firm or the home. lets drill down. In the United States about 50% of the houses are heated with gas. This raises several important questions:

Who pays for replacing the gas heater with an electric heater? That includes installation and remodeling costs as well as the cost for the device. The number of new electric heaters that would have to be manufactured is on the order of 50-100 million and what of half the world that still cooks on pen fires? Is not such manufacturing going to produce more pollution and use more energy? It requires old technologies of mining the minerals and producing the plastics that go into the manufacturing of these units, as well as their transportation from mine to factory and from the factory to homes. There are many parallel questions

with indigestible cascading effects. The goal must be a well thought out blend of technology and growing food. But thinking will not lead the way - emergent realities will be responded to, so we need a sense of the future that meets both the needs of good thinking and matches the reality of what people will do more instinctively under survivalist urgency..

The Gardenworld system that just might meet these two might look like:

- A well thought out blend of tech and food.
- Good growing and good living should share spaces with people living close to essential production
- Core to human thriving are relationships, love and cooperation as well as individuality.
- Use of education and health as enablers of participation.
- Aesthetics and design are guiding principles in how growing and living are co-located..
- Concern for the experience of people is the important guide to policies.
- A recognition that the historians have been right: democracy and quality of life are inconsistent with financial inequality.

There are hundreds of ways of putting together such a list. But it is important to be aware of a need for guiding principles and to develop your own working list.

Politics may be one of the most difficult parts of getting us to a better future. As of now, scientific consensus is that we need a major cutback on the use of fossil fuels. How can that be done? It seems like it requires an agreement among all of us because if some resist it would weaken the impact of any group decision. If we have just a few years to act, we need to make some critical moves. Draconian moves (small violation lead to major punishments). Politicians just are not going to do this - yet. So, draconian moves will be necessary that might force the public, society, and institutions to move toward a different way of living.

Here are several of many possibilities.(remember the scientific view is that we

must cut fossil fuel use, not b6 2050, but soon, now. and we are not doing it.)

As of the first of next month, no more air travel. Well, many people are not at home, but traveling. Do we allow them to return? If they all tried in the days remaining in the month there are not enough flights to do this. And how many would game the system? And would the ground and flight crews show up? Of course the legal response. - well. But this is the kind of action that will be needed to shake up the system and force a move toward meeting the 2 degree (or perhaps 1,5 degree) goal. The FAA could do this, though legal responses to stop it would happen in hours.

Other possibilities

No fuel for trucks as of next month. No food delivered at any distance. Total chaos within 48 hours. (Or within minutes of the announcement.) part of our failure of governance is it is not clear that this could be done, even if necessary. Perhaps the Food and Drug Administration working with the Interstate Commerce Commission could do this.

No going to jobs that are not contributions to survival . Who decides?

No fuel for heating homes. Must use electric appliances, not gas. How many? Who manufactures that many with a manufacturing process that does not also contribute to co2 emissions? And who pays for the individual new appliances house by house??

If a home can't be heated, why pay the mortgage? Banks fail. Cascading effects will swamp the current system.

Politics as we know it cannot deliver is from these effects. Could a popular revolt? And would a popular revolt have such goals in mind, or merely use violence to get the resources to continue a few more months, maybe even days?

A popular revolt would be met by the power of the state - if the national guard would show up. Unlikely. The draconian moves would lead to local chaos which would lead to the emergence of mafia-like local strong men "We provide you with security, you provide us with goods." If there are any left after 48 hours? Production ceases, storage is used up.

This is grim, yet only by seeing it can we imagine alternatives, and maybe not even then. You should believe that many groups: wealthy, military, corporate, are

having these conversations.

But, need we be reminded, without something like such draconian moves the result will be the boiled frog. Inaction also leads to cascading failures. Imagine the workers at the electric utility company walking away from their jobs.

Politics is about conflict, and to avoid politics is to hope there is no conflict. But politics has been since Aristotle recognized as the way society handles actually existing conflict. A book such as Barrington Moore's *The Social Origins of Dictatorship and Democracy* shows that the issues are profound. The history from tribe to monarchy to plutocracy to parliamentary and representative democracy is attempts to deal with conflict in a reasoned way, coping with the impact of rising population.. We are in that incomplete process. The unfinished French Revolution seeking liberty, justice and equality, or the American version life liberty and the pursuit of happiness. What have left to overcome are self-protecting elites, who, in order to protect existing income streams, want to avoid the passion of serious change.

My own view is that amidst the terrible it is important to keep working on the best plausible solution, which I think is some combination of agriculture and civilization, what I have called Gardenworld. Food will be the most important task as climate destruction increases, Our spirit needs to be hopeful and growing food and people in the same attractive environments is something to hope for and work towards. Doing our best has dignity to it. If we fail, so be it. No guarantees as those living in past collapsed empires know. But just maybe we can wiggle through. Then the task continues with the next generations. But even wiggling through requires a near immediate stop to all use of carbon fuels.

Gardenworld will require a new look at land and its management. It also requires something very hard – to shift our pleasures from owning to cooperating, from material stuff to pleasure in relationships – with people, animals and plants. Circumstances will force that, but may lead, instead of to cooperation and caring, to mafias and militarization. The transition will be hard.

Yet the ways of living of the most ancient humans offer teachings for how we may move forward. The idea that *nomos* meant equal distribution started with the division of land in equal segments to provide for equal grazing of cattle. The

evolution of culture was from equality towards hierarchy. By the time of Plato Laws means collections of legislations, a bunch of laws, not division of a whole into equal parts¹. The key here is that the result – lawful a feeling for the law – is an evolution, a development, of the mind in relation to its experience of the world. This is a more fragile view and require renewal and defending.

There are no guarantees as the past collapse of empires show Amidst the terrible trajectory it is important to keep working on the best plausible proposal, which I think is some combination of agriculture and civilization, what I have called Gardenworld. Food will be the most important as climate destruction increases, and the spirit needs to be hopeful and aesthetic, growing food and people in the same attractive environments. This goal is something to strive towards.

Proposed structure of the economy.

We need at least a sketch of where we might be going. Key forms of “employment” (I put this in quotes because how people are paid and what happens to massive unemployment needs lots of thought - and compassion.)

1. Green everything for agriculture and aesthetics, blending growing food with growing people.
2. Welfare for those hurt by the transition
3. Manage 1 and 2. (Huge)
4. Much smaller but still important, manufacturing
5. Arts and education for the culture of belief for 1-4.

The details can be endlessly thought out. A new culture emerging around such an economy might be something like

Deep understanding of the human and our place in life and death. Relying on an ethics that takes caring seriously but also includes some aspects of science: honesty, experimentalism, the legitimate of questioning, and knowing there is no final state of culture but a continuing evolution as humans and circumstances interact. A feeling of joy in participation knowing that danger lies at the edges - and sometimes in our midst, and that this is not only ok, it is the dance life offers.

And that our task is “to make the frozen circumstances dance, we have to sing to them their own melody.”

But this is going to be hard and everyone is needed. Throwing away anyone makes us all feel vulnerable. The hard part is to start with the feeling there is no obvious exit. We can do our best to get on an attractive path like Gardenworld. If we do our best and then fail, we have our dignity. And maybe we succeed and the next generations take up the development.

Here, in painting, to nudge our mind a bit, are the cycles we seem to go through. It is easy to come up with art from the WW 1 and 2 period of similar feeling. So let's stop for a short meditation.

We later civilizations, we too know we are vulnerable. Paul Valery 1899.

This is a series by Thomas Cole painted in the 1830's that re-presents the theme of the rise and fall of civilization, in the medium of painting rather than words.. These are really meditation pieces.

This “savage state” is a view of nature from the time when nature was what was beyond the garden, the field, the easy hunting and gathering. It portrays a grim nature of crags and storms. Not the current imagination about the wild which is much more benign. The grim of current nature is more man produced, species die-off, pollution, fracking, and begins to resemble this picture... as
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We are facing many simultaneous challenges, and not responding very well. The context for this book is the near general collapse we are now in - climate heating, population, migrations, weakness of governments, failure to distribute the benefits of society. This is the dilemma. Doing nothing will have a bad end and yet all the adequate proposals to actually do something are also grim. We need what in boating is called jettisoning: throwing overboard unneeded stuff in order to keep afloat. We need to

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- How did we get here?
- What can happen?

- what should we do:

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- New politics
- New philosophy

This project for me started twenty years ago as GardenWorld Politics, I just wanted a nicer world. But then I started a series of notes to colleagues about economics and its relation to climate change. I was sorry to judge myself as deaf to implications, when I heard about climate warming and CO₂ in a seminar in La Jolla in 1984, and ignored what I heard, like so many others, for three decades. I saw this world, based on lots of travel and living three years in Mexico, as doing badly while economists were misleading with claims about “increasing per capita GDP” and “lower mortality rates.” My casual research turned more serious. Gardenworld is a kind of studio to think through what can happen now and how we should act.

We want a way of integrating humans with the earth. This requires deep study of the earth and human nature. Human nature developed from our primate and mammalian past. Defining humans by how we are different from animals is a mistake, Our common capacity for raising each other with care and compassion is much more important. The question is, how do we design an approach to society that honors that deep core. The popularity of youtube videos of animals caring, even across species, and playfulness is probably because they remind us of our better selves.

The earth is more fragile than we were taught in school where it was mostly assumed as a constant stage on which we could live the dram of our lives without worrying about the stage itself. Strong languaged and well thought thru approaches, such as Theodore Roszak’s *The Voice of the Earth* started movements like Eco-psychology.

“So my article of faith is that at a very deep level the human psyche is grafted to the planet out of which we evolve, that there is what I call an ecological unconscious. Now whenever we invoke the unconscious, the depths of the unconscious, what we’re essentially doing is pursuing a philosophical discussion of human nature. We’re asking what makes people tick, what are the foundations of human behavior?”

Theodore Roszak

Psychoanalysts like Erik Erikson and Erich Fromm provide important guidance on who we are. Erikson, in his *Childhood and Society*, looked at the human life cycle and the social needs to support the growing child and parents throughout their life cycles. Fromm, in his *Escape From Freedom* and *Sane Society* thought through the needs for a healthy humanity at the adult level.

We got here from hunter gatherers who were forced by leaders under pressure from increasing populations, to domesticate, after a hundred thousand years of resistance to settlement. Life inside the settlements from the beginning was less healthy and more programmed. The early walled societies broke down social relationships around the fire - song, stories, and a spirit of sharing, and replaced it with constant war, regimentation, and slavery.

The path from early settlements to now usually seen as a series of phases, where transitions were caused by new technologies: the stirrup, the bow, the horse, the catapult, explosives, and on. But for our purposes it is better to see the path from past to present as one complex emergent pattern. While technologies developed, the same elite remained in control across apparent transformations. Points along the way include the breakdown of empires and a shift to feudalism, the emergence of craft and trade, the taking of profit into new colonization and industrialization. Now we are coping with financialization and massive inequality. Along the way the French Revolution failed to find justice that used society to create quality of life for all, but rather led to Napoleon. Fossil fuels were discovered and society took a leap upward in population and the production of stuff. The result, instead of the benefits advertising and politicians promised, we get an overheating atmosphere and world wide despair.

To avoid 2 degrees and stay below it, we probably need draconian moves. Remember, the agreed upon “goal” is zero carbon. For example, if somehow we mandated no fossil fuel heating of homes and offices we would get a slow cascade of

chaos. Or no gas for food deliveries. The population would be on the edge of starvation in 48 hours. All forced to cope. Without such a nudge, it is likely that we keep drifting.

If everyone got the idea that food is the major requirement, what might emerge? We take care of nature so nature can take care of us. If we don't we lose and nature goes her way. The idea of gardenworld is that we take the economic and aesthetic sides of our every move into account. Gardenworld is where humanity began and where we need to go. Food, community, culture. This is going to be hard. Everyone is needed. It is clear that if we are to stay under 2 degrees every job in society, every project, needs to be rethought. It probably means a smaller economy. But possibly

We can have growth without development, and development without growth - Aristotle.

We don't want a plan but an intent that guides our acts and imagination, - not constraints but opening to new possibilities. . Plans tend to be rigid and we desperately need flexibility and not fragile system likely to fail. In thinking through what to do I am proposing that we think of the economy as moving toward a new approach to economy, away from consumerism and toward Gardenworld where the stuff we see in front of us is stuff we grew more than stuff we bought.

People will need to be included, and redeployed away from consumption and pollution to relationships, art, and intense common sense - which means lots of effort into meeting basic needs. We were dependent on an energy regime that is going to be gone. My thinking is that most current (2019)energy discussion still moves at the level of policy in the abstract without any consideration of implementation at the concrete level of the firm or the home. lets drill down. In the United States about 50% of the houses are heated with gas. This raises several important questions:

Who pays for replacing the gas heater with an electric heater? That includes installation and remodeling costs as well as the cost for the device. The number of new electric heaters that would have to be manufactured is on the order of 50-100 million and what of half the world that still cooks on pen fires? Is not such manufacturing going to produce more pollution and use more energy? It requires old technologies of mining the minerals and producing the plastics that go into the manufacturing of these units, as well as their transportation from mine to factory and from the factory to homes. There are many parallel questions with indigestible cascading effects. The goal must be a well thought out blend of technology and growing food. But thinking will

not lead the way - emergent realities will be responded to, so we need a sense of the future that meets both the needs of good thinking and matches the reality of what people will do more instinctively under survivalist urgency..

The Gardenworld system that just might meet these two might look like:

- A well thought out blend of tech and food.
- Good growing and good living should share spaces with people living close to essential production
- Core to human thriving are relationships, love and cooperation as well as individuality.
- Use of education and health as enablers of participation.
- Aesthetics and design are guiding principles in how growing and living are co-located..
- Concern for the experience of people is the important guide to policies.
- A recognition that the historians have been right: democracy and quality of life are inconsistent with financial inequality.

There are hundreds of ways of putting together such a list. But it is important to be aware of a need for guiding principles and to develop your own working list.

Politics may be one of the most difficult parts of getting us to a better future. As of now, scientific consensus is that we need a major cutback on the use of fossil fuels. How can that be done? It seems like it requires an agreement among all of us because if some resist it would weaken the impact of any group decision. If we have just a few years to act, we need to make some critical moves. Draconian moves (small violation lead to major punishments). Politicians just are not going to do this - yet. So, draconian moves will be necessary that might force the public, society, and institutions to move toward a different way of living.

Here are several of many possibilities.(remember the scientific view is that we must cut fossil fuel use, not by 2050, but soon, now. and we are not doing it.)

As of the first of next month, no more air travel. Well, many people are not at home, but traveling. Do we allow them to return? If they all tried in the days remaining in the month there are not enough flights to do this. And how many would game the system? And would the ground and flight crews show up? Of course the legal response. - well. But this is the kind of action that will be needed to shake up the system and force a move toward meeting the 2 degree (or perhaps 1,5 degree) goal. The FAA could do this, though legal responses to stop it would happen in hours.

Other possibilities

No fuel for trucks as of next month. No food delivered at any distance. Total chaos within 48 hours. (Or within minutes of the announcement.) part of our failure of governance is it is not clear that this could be done, even if necessary. Perhaps the Food and Drug Administration working with the Interstate Commerce Commission could do this.

No going to jobs that are not contributions to survival . Who decides?

No fuel for heating homes. Must use electric appliances, not gas. How many? Who manufactures that many with a manufacturing process that does not also contribute to co2 emissions? And who pays for the individual new appliances house by house??

If a home can't be heated, why pay the mortgage? Banks fail. Cascading effects will swamp the current system.

Politics as we know it cannot deliver is from these effects. Could a popular revolt? And would a popular revolt have such goals in mind, or merely use violence to get the resources to continue a few more months, maybe even days?

A popular revolt would be met by the power of the state - if the national guard would show up. Unlikely. The draconian moves would lead to local chaos which would lead to the emergence of mafia-like local strong men "We provide you with security, you provide us with goods." If there are any left after 48 hours? Production ceases, storage is used up.

This is grim, yet only by seeing it can we imagine alternatives, and maybe not even then. You should believe that many groups: wealthy, military, corporate, are having these conversations.

But, need we be reminded, without something like such draconian moves the result will be the boiled frog. Inaction also leads to cascading failures. Imagine the workers at the electric utility company walking away from their jobs.

Politics is about conflict, and to avoid politics is to hope there is no conflict. But politics has been since Aristotle recognized as the way society handles actually existing conflict. A book such as Barrington Moore's *The Social Origins of Dictatorship and Democracy* shows that the issues are profound. The history from tribe to monarchy to plutocracy to parliamentary and representative democracy is attempts to deal with conflict in a reasoned way, coping with the impact of rising population.. We are in that

incomplete process. The unfinished French Revolution seeking liberty, justice and equality, or the American version life liberty and the pursuit of happiness. What have left to overcome are self-protecting elites, who, in order to protect existing income streams, want to avoid the passion of serious change.

My own view is that amidst the terrible it is important to keep working on the best plausible solution, which I think is some combination of agriculture and civilization, what I have called Gardenworld. Food will be the most important task as climate destruction increases, Our spirit needs to be hopeful and growing food and people in the same attractive environments is something to hope for and work towards. Doing our best has dignity to it. If we fail, so be it. No guarantees as those living in past collapsed empires know. But just maybe we can wiggle through. Then the task continues with the next generations. But even wiggling through requires a near immediate stop to all use of carbon fuels.

Gardenworld will require a new look at land and its management. It also requires something very hard – to shift our pleasures from owning to cooperating, from material stuff to pleasure in relationships – with people, animals and plants. Circumstances will force that, but may lead, instead of to cooperation and caring, to mafias and militarization. The transition will be hard.

Yet the ways of living of the most ancient humans offer teachings for how we may move forward. The idea that *nomos* meant equal distribution started with the division of land in equal segments to provide for equal grazing of cattle. The evolution of culture was from equality towards hierarchy. By the time of Plato Laws means collections of legislations, a bunch of laws, not division of a whole into equal parts¹. The key here is that the result – lawful a feeling for the law – is an evolution, a development, of the mind in relation to its experience of the world. This is a more fragile view and require renewal and defending.

There are no guarantees as the past collapse of empires show Amidst the terrible trajectory it is important to keep working on the best plausible proposal, which I think is some combination of agriculture and civilization, what I have called Gardenworld. Food will be the most important as climate destruction increases, and the spirit needs to be hopeful and aesthetic, growing food and people in the same attractive environments. This goal is something to strive towards.

Proposed structure of the economy.

We need at least a sketch of where we might be going. Key forms of “employment” (I put this in quotes because how people are paid and what happens to massive unemployment needs lots of thought - and compassion.)

1. Green everything for agriculture and aesthetics, blending growing food with growing people.

2. Welfare for those hurt by the transition

3. Manage 1 and 2. (Huge)

4. Much smaller but still important, manufacturing

5. Arts and education for the culture of belief for 1-4.

These are fleshed out in more details in Chapter 7 .

A new culture emerging around such an economy might be something like

Deep understanding of the human and our place in life and death. Relying on an ethics that takes caring seriously but also includes some aspects of science: honesty, experimentalism, the legitimate of questioning, and knowing there is no final state of culture but a continuing evolution as humans and circumstances interact. A feeling of joy in participation knowing that danger lies at the edges - and sometimes in our midst, and that this is not only ok, it is the dance life offers. And that our task is “to make the frozen circumstances dance, we have to sing to them their own melody.”

But this is going to be hard and everyone is needed Throwing away anyone makes us all feel vulnerable. The hard part is to start with the feeling there is no obvious exit. We can do our best to get on an attractive path like Gardenworld. If we do our best and then fail, we have our dignity. And maybe we succeed and the next generations take up the development.

Here, in painting, to nudge our mind a bit, are the cycles we seem to go through. It is easy to come up with art from the WW 1 and 2 period of similar feeling. So lets stop for a short meditation.

We later civilizations, we too know we are vulnerable. Paul Valery 1899.

This is a series by Thomas Cole painted in the 1830's that re-presents the theme of the rise and fall of civilization, in the medium of painting rather than words.. These are really meditation pieces.



This "savage state" is a view of nature from the time when nature was what was beyond the garden, the field, the easy hunting and gathering. It portrays a grim nature of crags and storms. Not the current imagination about the wild which is much more benign. The grim of current nature is more man produced, species die-off, pollution, fracking, and begins to resemble this picture... as our fault, not the sate of nature.

The more benign nature with modest use of the land, starts to get at out own romantic view of sheep shepherds and shepherdesses.



Where the not just the human habitation, but the clouds and the mountains are softened. The sheep however are a danger sign we did not see, strippers of the landscape as in modern Scotland. There is a sense here of hope in domestication while preserving as much of the wild as possible, as Monbiot and others suggest, keeping much around us, reminding us a bit more of who we are.

But the next reminds us that who we are continues from the sheep to trade to empire. Nature is gone, tensions are building.



And then..



Cole believed that history operated cyclically. While knowledge could advance in fits and spurts, revolutionizing the world from time to time, man's virtue tended to lag significantly far behind. We are, therefore, virtually condemned to repeat the mistakes of the past just as we attempt to learn from them. In our endless attempts to improve our world—to expand both our power over the forces of nature and to protect our equally natural liberty—we set in motion a series of dialectical conflicts, both generative and destructive. Man has learned and accomplished a great deal since his time as a "savage," but his rise in this particular civilization has been marked by conquest and exploitation stretching beyond the mere felling of surrounding forests. The empire has, through the projection of power abroad, exploited and constrained the liberty of its neighbors. However, history simply did not allow for actions without equal and opposite reactions. Quoted from

<https://www.libertarianism.org/columns/art-ideas-thomas-coles-course-empire>We overdid it.

And then that distant peak regains the center, the brightly lit column does not attract us.



Ouch. Valery, Toynbee. Lets try Gardenworld instead. For a longer essay on the significance of each painting, <https://www.libertarianism.org/columns/art-ideas-thomas-coles-course-empire>

Chapter 2. Human Nature and design.

It is crucial to be as clear as we can be about who we are, us humans. Such knowledge becomes the design guide for Gardenworld (or any other proposed future).

As we move through the 21st century, we need to struggle to bring the human, as the design criteria, back into the center of design and policy. – John Carl Warnecke.

Our ives are organized around food, sex and dignity. Putting those together is not easy, and is the work of culture, man's "second nature. The slow evolving set of habits that make up our character have led to a social character that is too competitive, too mean, too destructive. Gardenworld is, through the needed cooperation Gardenworld requires, the situation for growing more cooperative less selfish people, a second nature, shared character, that is quite different in feeling and tone than a competitive society of mostly isolated individuals - who by the way are not very happy in their isolation.

Our thinking is merged at every point in that body of feeling and experience.

I do not believe that I can be happy if others are not. What we do should make a better life for all. The promise of democracy was short circuited by an economy that uses the state by some to exploit others. The happiness of all should return as a guiding template against which to measure all initiatives. By "happiness" I don't mean frothy contentment. Jefferson, in "life liberty and the pursuit of japponess" of the Declaration means, from "to happen", the range of roles, a person has in society,

actions that nail the experience to the body and engage one's talents.

That means looking at humans across the life cycle. We need to build environments good for children, parents and older people. Animals and insects too. Look at the environment as a whole that needs cultivation and management. It also means that we talk about philosophy: what is the nature of the world, (more than standard science), and what is human nature in it? To show how difficult and interesting this is, consider:

“The struggle between democratic and rational methods.”

At first thought, how could rational and democratic be add odds? It is because rational is without feeling and democratic requires felt interests to be at play. This “struggle” will constantly arise in Gardenworld.

There are several similar issues several related issues of importance also for lots of discussion.

Starting with our biological inheritance. We are not confined to our brain. Mind can only be understood when we understand its being a blend of brain and surrounding circumstances, including other people. We are like insects - eyes, legs, reproduction, hunger, and much more. We are like mammals adding compassion and care for young, a full heart of feeling and concern. Our primate ancestors developed hands and feet and tail to swing in trees, and avoid capture for hungry others. Then down onto the plains and fast running upright. Slowly we became us.

Lot of thinkg these dayas about post human, the move of thinking into computers. Bt note, when a computer “plays chess”, it has, unlike us, not experience of winning if it wins, and no pleasure in playing the game. It has no experience of playing at all.

Our brain is large, all of two pounds! Highly interconnected but capable of interaction with itself (close your eyes and imagine scenes form the past) that it tends to live in a substitute reality. This is complex. We think we are seen by others, but mostly we are dressed in clothes that have a style, reflect a culture and community choices. Very little of ourselves is actually seen by others. We have beliefs but they also cover our thoughts with ideology and so our real thoughts are hidden from others by that covering of ritualized concepts and grammars.

What s called “transcendence “ is that we are potentially bigger than we are now, more complex, more aware, more creative, more related. The fact that we can be more than we are is always with us. Society is not very good a supporting that potential, and may even be threatened by it. Our freedom gets in the way of group thinking. Garden world should support our being larger. I am convinced that we who are readers tend to

discount the amazing intelligence of ordinary people able to mostly survive in a very complex world, much more complicated than the books we plow through. This will be crucial for Gardenworld challenges.

Early humans developed fire, weaving, pottery, kinship systems, and much more, telling stories and singing (the birds as teachers). We might have stopped there, preferring to do what the group does than embrace new discoveries and patterns. But population created new anxieties and innovations, including choosing strong leaders, came to dominate.

Under these pressures the tendency of mind is to move off of major concerns - the philosophical and political - to the self serving of the little self, leaving the big self behind, what Fromm called Escape from Freedom. Our anxiety masters us and we get stupid.

Along with this tendency to avoid any controversy is our attitude towards ourselves and art. "I have no talent". Did you ever try? "No". If you did would the goal be to experiment and have fun or be famous? Part of Gardenworld is the continual rearrangement of the things we are using into patterns that are pleasing as well as work. Patterns that satisfy. Repurpose to better meet human needs rather than extraction from the land and from other humans.

We have developed a limited view of what a human is, citizenship and belief have given way to consumerism: the view that all a person's needs can be met by things they can buy. climate breakdown will be a major disrupter of this pattern and it is important to see that we may come out of this better off than we are going into it. Though it will be a rough ride with many serious hurt. Part of respect for human nature is to realize that much of life has to be lived, it can't be solved.

Sex, food and shelter: We eat in order to reproduce. This is given by the deepest circumstances from one celled organisms to our most advanced self (short or robotic replacements where the prosthesis becomes the person). It is striking how much eating leads to cuisine and gourmet experiences. Along with sex comes love and sex becomes dressed in relationships, so much that it is hard to get cause and effect between sexual drive and relationship drive. Sex is an "it depends" activity and hence very context sensitive to being respected along with curiosity and caring. Hence love becomes involved. We need to realize how powerful it is, and that there seems to be no perfect solution between marriage and promiscuity, from randy children to randy senescence. There is also the pain of not being able to perform to the level of our imagination.

A key basis for understanding our nature is our belief system. We are organic, not mechanical. The difference is critical for the world we need to build. For mechanical

systems parts maintain their integrity (static properties) even when they become part in a larger system. For organic systems parts do not maintain their integrity when they become parts of a larger system. The flow, adapt, allow for emergent properties.

Designing for the organic requires a kind of respect not needed for mechanical systems

When I am talking with you, you have a model of me in you that touches all my neurons, flows with every hormone. And I am doing the same. Feel how a room changes when you are alone in it and someone else enters. Everything changes. This is much more interesting and complex than most discussions allow. This is a subject for another conversation but please take it seriously.

In fact, for all these questions, the best I can do is point you in the direction. The task here is to get you involved with Gardenworld as an intent toward future activity, not for me to be a university. You should feel an urgency to learn as much as possible about everything. Don't be like the management consultant whom when asked if they read much said "Yes". What? "Management books". Gardenworld is an opportunity to be larger. Be a participant.

Religions and philosophy have tried to understand the human experience. In the search for security these systems seem to start with the idea that there is a solid ground on which to build thinking. What if there isn't? The idea that there is a solid ground is the projection downward (turtles all the way down) seem to me to be projection of the idea of solid object into the unknown. Part of the hope of religions and philosophy has been to escape the body - polluted - and reside only in the soul - pure. But this strategy leads in many ways to discounting the emotional and perceptions in ways that serve existing power. The Greeks took the idea that a rational God created the universe so the universe is knowable in principle, and by us hopefully.

But the idea that the universe is created by a rational god is clearly a projection driven by a wish - to find that rock bottom solid basis for understanding. I take the view that we should accept that we are our body and thought in the midst of a relatively unknowable universe. If we are to work to design a replacement for the culture we have had, dependent on fossil fuels and borders and dominating elites - we need to know who we are so we can design for us, not for an ideology.

There has been a tendency in society from fairly early to treat the body as somehow inferior. Often to treat the body as a shit bag, not as something marvelous made by god/nature. That we eat digest and defecate is a marvelous arrangement. That we come to each other and fertilize is extraordinary. These issues say a lot about what kind of world to make, one that supports the idea of a sound mind in a sound body, not leaving the bad body to arrive at bodiless experience.

Another issue that will be played out in Gardenworld is social status. Like quick awareness of sex, when someone you don't know enters the room you know before you can catch the thought what their social status is. We need to accept that such tendency to ranking and placing is human and cannot be repressed. But we can move its expression away from stuff (remember "property" is what signified social rank, what is Proper") to qualities of the person, not their belongings. A move toward amore equitable property society need not mean leveling of sense of self and person. In such a world difference in skin color become appreciated not leveling. The range of our actual skin color is amazing, and we can learn to see each color as a complement to each other and the environment.

There is no solid ground on which to base our understanding of who we are. It requires continual rethinking, experiencing, conversation, art, experiment. Gardenworld is aimed at being a place where we grow healthy people who are interested in each other and can tolerate the anxieties of life - seeing themselves as part of the flow of nature yet aware of it all, seeing in war, with an easy smile for others. Cooperation, neighborliness, interest in helping others become, in Gardenworld, much more central to daily experiences. Circumstances of climate breakdown will force us to cooperate. At times it will be awkward and we will resist, but we need to do the hard work of being with each other for a new mode of survival. I think humans will be much happier in such a culture. Remember that as we make choices of what to build toward, what we build will in turn build us, because we are a reflection of our environment. I have further thoughts about design in Chapter 7.

Erik Erikson and the human life cycle.

I am going here into a bit more detail. Remember the task is a better society for real people. That means understanding people. Skip this section if it is getting in the way, but do come back to it.

Erik Erikson, a psychoanalyst and artist, took a deep look at human development as he tried to put together his psychoanalytic experience with children and his travels in different cultures. I had the opportunity to spend time with him first in Berkeley and later at Harvard. I find his work helps to understand the way the social world and the

natural world can support the development of individual human lives. Erikson's perspective on the human life cycle can be very helpful in mapping human nature into institutions – and GardenWorld. Erikson, uniquely interested in children, was well aware that children are the core of the next generation. The path from childhood to maturity is thus a structure in time integrated with society and with surrounding generations. His simple model was self-body-society. This forces awareness integration across the key elements of a good life and a template for Gardenworld ideas - do they work across the life cycle for children, parents, the mature?

It is becoming common to talk about “cradle to cradle” (that is, the end of one life is the beginning of another) design principles for materials and buildings. We need to extend that logic to social design and the cradle to cradle life cycle perspective on human development and the interweaving of generations. Erikson worked out a roadmap, of what life is all about, how the biological interacts with the social to create the self. Most importantly, each stage is an achievement –or failure – to be integrated into the next biologically emergent capacity.

I am proposing that we use Erickson's eight stages of life as a design template for GardenWorld. In his first work, *Childhood and Society*, he writes eloquently about the balance between the mind, the body and society. Any achievement or failure to achieve, by a growing person, involved all three at the same time. In that book, he presented the model of the human life cycle, the stages of life, with echoes of Shakespeare, who wrote for Jacques (I quote at length because we need to be reminded that we have a culture.)

All the world's a stage,
And all the men and women merely players;
They have their exits and their entrances,
And one man in his time plays many parts,
His acts being seven ages. At first, the infant,
Mewling and puking* in the nurse's arms.
Then the whining schoolboy, with his satchel
And shining morning face, creeping like snail
Unwillingly to school. And then the lover,
Sighing like furnace, with a woeful ballad
Made to his mistress' eyebrow. Then a soldier,
Full of strange oaths and bearded like the pard,
Jealous in honor, sudden and quick in quarrel,
Seeking the bubble reputation

Even in the cannon's mouth. And then the justice,
 In fair round belly with good capon* lined,
 With eyes severe and beard of formal cut,
 Full of wise saws and modern instances;
 And so he plays his part. The sixth age shifts
 Into the lean and slippered pantaloon
 With spectacles on nose and pouch on side;
 His youthful hose, well saved, a world too wide
 For his shrunk shank, and his big manly voice,
 Turning again toward childish treble, pipes
 And whistles in his sound. Last scene of all,

The stages of life provide a framework for thinking about how society works and could work. We can use Erikson's work as a design template for society –that is to see what social institutions are necessary and attractive at each stage in the human life. He saw that each stage could be characterized by an opportunity and the crisis and the resolution of the stage provided the platform for the next stage with its own unique qualities.

Writers like Erikson and Fromm are important in helping bridge between human nature, society and the planet.

His original model shows that each stage is built on all the major and minor effects of the success or failures at previous stages. The stages build upwards as a life does and each stage is characterized by the emergence of a new biological capacity that creates opportunities for success or failure and all the possibilities in between. As you read these think of the implications for a good society.

Approximate Age	Virtues	Psychosocial crisis ^[3]	Significant relationship	Existential question ^[4]	Examples ^[4]
Infancy Under 2 years	Hope	Trust vs. Mistrust	Mother	Can I trust the world?	Feeding, abandonment

Toddlerhood 2-4 years	Will	Autonomy vs. Shame/ Doubt	Parents	Is it okay to be me?	Toilet training, clothing themselves
Early childhood 5-8 years [5]	Purpose	Initiative vs. Guilt	Family	Is it okay for me to do, move, and act?	Exploring, using tools or making art
Middle Childhood 9-12 years [6]	Competence	Industry vs. Inferiority	Neighbors, School	Can I make it in the world of people and things?	School, sports
Adolescence 13-19 years [7]	Fidelity	Identity vs. Role Confusion	Peers, Role Model	Who am I? Who can I be?	Social relationships
Early adulthood 20-39 years [8]	Love	Intimacy vs. Isolation	Friends, Partners	Can I love?	Romantic relationships
Middle Adulthood 40-59 years [9]	Care	Generativity vs. Stagnation	Household, Workmates	Can I make my life count?	Work, parenthood

Late Adulthood 60 and above [10]	Wisdom	Ego Integrity vs. Despair	Mankind, My kind	Is it okay to have been me?	Reflection on life
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But we can add to the stages for the child the social conditions that are necessary to support each stage. There is a famous quote, “But who will teach the teachers?” We see that at every stage adults are necessary to help the developing child, and these adults themselves are in a specific part of their own life cycle.

That is, healthy development requires parents, schools, work, and society.

* Our society needs to provide the conditions were ordinary human beings can, in their 20’s and ’30s be good parents,

* Our society needs to provide educated and humane teachers and the settings for the education of their students.

* Our society needs to provide work which provides for dignity and creativity at work and the resources for intimacy outside it.

* Our society needs to provide an interesting milieu that allows each person to bring together the threads of their life into a meaningful and attractive pattern.

Society is a complex mosaic of interdependent generations. My local county government is arguing with needs for new jails and the fact that jails are filled with people 70% drug dependent and 20% mentally ill, but the county has not talked to the schools about a joint program and joint metrics to cope with the obvious independencies.

These life cycle and intergenerational dependencies are essential guidelines for GardenWorld. Taken together they can be used as a design template, or guidance, or reference point when looking at any policy in the GardenWorld context. If the policy does not work well in one or more phases the legislation or policy proposition should be redesigned, or at least more integrated into policies or implementations that can balance the consequences. Not only do we need conditions that support the growing person at each stage but we need people who themselves are growing to be available at each stage. The picture is of the interdependencies of generations rather than of one just replacing another.

Children are really stressed in this society. Their choice of violence, drugs, and

video games puts them in control in a world that is so afraid of them getting hurt, or causing hurt. Traffic, guns, and crowding have been lethal for childhood. Children used to be able to use the woods, fields, hills, and streams to come to know themselves in the context of nature. The lack of fit between children's needs and the modern commercial environment is a serious design flaw.

The intelligence of a community is largely the ensemble of skills and routines that are part of the life activity of the people in it. Our reservoir of skills is shifting. It is not clear how. Kids play in the interface with buttons rather cooperating through family, school, sports or work. Adults are also button pushers rather than tinkerers. Old crafts, especially in building, are gone. Newer autos and computers do not support tinkering and home repair.

Using Erikson's stages as a design template, and looking at the consequences for the older generation that administers each stage, we see a complex interweaving of generations with specific consequences age by age, that a good society should support. Put simply any social innovation should work across the lifecycle, having a positive or at least not negate impact, at each phase. This should be one of the frameworks for analysis any social policy ought to undertake. In parallel with environmental impact statement, we could have "Lifecycle" or "generational impact" statements.

Erich Fromm

As the person is integrated into society they become representative of that society, easily recognized. This is a complex process of character building and weaving of fate. This will happen in Gardenworld. Erich Fromm is famous for his *Art of Loving* and *Escape From Freedom* but I will make most use of his *The Sane Society*. He takes it as obvious that a society that can kill itself off is crazy. I agree, sort of. If part of human nature is to follow popular memes without question, then yes. But calling normal human nature insane feels important but rhetorical. Let's see what use we can make of this important thought. Fromm had a number of main ideas. First is *Escape From Freedom*, the idea that humans have created the possibilities of freedom (active mind unencumbered by repressive politics) but, out of fear and anxiety, avoided these possibilities and resulting in our conformity, meme-dominated minds (my paraphrase), mechanization and deadening of the self and those around us.

The second major idea is what he called social character. It is obvious that people are influenced by their families schooling and communities. What is less obvious is that many people share influences and tend to become a force in society.

If you have spent your life preparing for and occupying an eight hour job, with all its routines - walking down the hall for coffee - how totally alone and disorienting it

feels to be in a garden, trimming a hedge, deadheading flowers, checking soil for dampness, This is social character; the deep shaping of the habits of a life into a mode of being. Gardenworld (or any other future alternative) will have to cope with most people feeling uprooted and unsettled and grieving for a recent past abandoned.

This is not the place to lay out Fromm's work, but I do consider it one of the frameworks to help us understand people's resistance to change. Background to Fromm's own thinking was his appreciation and critique of both Freud and Marx. The avoidance of both thinkers by moderns is symptomatic of denial and avoidance. The 19th century was rather closed in, "Victorian." Freud and Marx broke through to social and individual dynamics. The door was open, but we mostly, like stepping outside on a brisk day, went back inside. Sure there are dated aspects to their thinking, but social science threw out the brain with the haircut. His book, *The Sane Society*, draws out the implications of these two books for what our goals as a society should be, if we are to have healthy larger people. Fromm's ideas about social character tell us a lot about how hard it is to change society - the momentum is built in to the character structure of those socialized. But he also is clear that the energy of character, which is the glue that holds society together, when thwarted, can turn into the dynamite of destructive forces.

Fromm developed a powerful theory of how character structure (For example, liking to be on time, use of anger to control others) is shared by groups in society based on their economic role. This is not yet the place to go into the details but they are profound. Such character structures are hard to change and are a conserving part of any society. I will have more to say about human nature when we get to the section on philosophy in Chapter 7.

Chapter 3 Gardenworld

In order to cope more effectively it is urgent that we come to an agreement on what kind of world our attempts to deal with climate breakdown and a handful of other problems is going to lead us to. So far, we talk about plans to curb or repair but not many are yet talking about goals beyond the need to cut greenhouse gases and cope. We need an attractive imaginative future that is a comprehensive believable and attractive view of what life and the world could look like.

The following analysis is short because while many issues are fascinating, such as the deeper side of human nature or how groups cohere, the focus has to be on Gardenworld, what it means and how to get there. Building Gardenworld will require lots of judgement, lots of creativity, and lots of knowledge. We need you to be a participant by bringing your work to the project.

Vision

As we make choices of technology, social organization, use of the land, how we occupy our children, how we start to organize new political structures, it helps if we have a vision.

“Without a vision the people will perish”

If we look over the course of human history the image in the back of most minds of how to live includes a mix of civilization with its arts and talents and innovations, and nature with its quiet, beauty and freshness. Blending civilization and nature prevents the worst of both gaining the upper hand - civilization - as oppressive hierarchy, perpetual war, and death, nature as a struggle for survival against the jungle and the desert. An image of the future should include the place of families - children and parents living an attractive life.

The West started with the Garden of Eden, an idyllic place in contrast to the harshness of the desert environment. Since then all great moves in civilization have been versions of that impulse. The Garden of Epicurus in Athens, the Roman Forum with its fountains, the water course city of Naples, the Paris of the Seine and the recovering Notre-Dame on its island, New York's Olmsted designed Central Park, the Winter Palace in Beijing. All towns have some versions of this impulse¹. Recent research shows that attractive, even beautiful, cities grow better. It is important to see that the Garden of Eden, and gardens in general, work in enclosed spaces, leaving the raw nature beyond free to be itself. Urbanization has however wiggled into every every opportunity for exploitation to sustain the city not just with food but with wealth extracted from the land as resources and from the people a paid hours for their talent. The city has consistently impoverished the countryside.

In the future we will need new experiments in agriculture to feed us and stay healthy and educated, new approaches to structures and housing families and

¹ see the excellent history *The American Home, Architecture and Society*

institutions, we will need these to work across the whole human life cycle. Nature will always be larger than we are and never fully known, from mosquitos to the big bang.

Food, aesthetics and good governance are design criteria for what I am bluntly calling Gardenworld. Since we all want to live in some combination of civilization and nature , from a vase of flowers in the living room to a path in the wilderness, and even a pathless wilderness, lets use our wealth to go there. Gardenworld is not a plan, but a guide, Plans are brittle, guidelines are flexible and dependent on local creativity and judgement.

We are at a difficult moment because the larger institutional structures are on the edge of collapse, meaning that the local tasks are all encompassing and likely to lead to raw responses. We must, with Gardenworld, do better. Perhaps there are other visions. Lets engage.

This discussion should start with a key fact - people like prosperity and are attracted to leaders who are builders. Gardenworld has to make the case that a greened aesthetic environment meets this goal. To do so we have to think through what prosperity and building can mean. Too much modern thinking leaves out the very things that need focus - such as the quality of lives or the threat of large wars. Garden communities that are welcoming to the migrants down to the stragglers will work.

The Greeks came up with conceptualizing philosophy, politics and economics - and one can add tech. These four are comprehensive, taken together and will be constantly returned to enrich our thinking in these chapters, though not as much as I would like. One problem. While GardenWorld is proposed as a global cultural goal, the focus here is on the West, mostly Europe and the US and its influence. So a word about Asia. There is a Chinese saying, "The people are in the forest and the emperor is far away". Unlike the West, where heroes are huge, god like, Jesus, Caesar, Dante, Napoleon, Lincoln - in Asia the leaders like Confucius and Mencius remain human sized, or almost invisible like Lao Tzu Asia remains more modest. Mao and Xi are quite westernized. Lots to learn from the East and I hope for a shared conversation.

In order to pull ourselves together we need a vision of where we are trying to go. Modernism and other forms of techno utopian vision do not work. I am proposing that greening the world integrating aesthetics and economics , integrating humans with nature and with each other, is a powerful vision that integrates the best of past cultures in a vision for the future that it is possible to work towards. A vision that meets the

basic needs - to feed us and give meaning and hope, and a context.²

I used to despair of the word *economy*, since it was about all anyone talked about. The language of economics replaced the language of politics. But in understanding its origins as what the Greeks called *eco-nomos* - estate management - I have come to the view that the idea can be updated to mean the estate as the globe and management as the task of integrating humans into it productively and with quality of life for all. Pretty good. If this book makes a claim it is that it puts the crisis in its cultural context and discusses more thoroughly the human implications of where we are and what can happen and what we should do. Much talk is good on criticism but few venture to talk about what to do and how it will unfold. Where is energy actually to be used less, and what happens to the people there?

The Green New Deal for example covers much of the same ground, but in its current form promises a fairly smooth transition to a high employment green world without disruption. I think the disruption implied by the changes needed is much more brutal than the GND implies. We shall see. Thom Friedman, who coined the GND phrase, wants to use it for high innovation. But he does not link it to the rich getting richer which is what many investors and economists expect to be the goal of greening. In the literature so far from GND there is no discussion about the disruption of actual lives nor a discussion of the political process to get there.

Imagine Harry, he lives with wife Jean and two kids in a house built in the fifties in a medium sized city. His job is eight miles from home, not a bad drive but it gets tighter at rush hour.

The word comes down from the bureaucrats doing their job, that the family must use some combination of less energy and more expensive energy. How will they do that, get the children to school, keep the house warm in winter and cooler in summer, and Jean spends the day in her car doing errands and working part time at the craft fair? Oh, Harry's job - might just be gone.

Imagine what would have to happen (specific scenarios please) to this family to get to the energy level needed to prevent a 2 degree rise? (Assume the plausible scenario that things have to be happening now in order to meet the 2050 target, (or the 2025 target, or the 2020 target). Economists tend to talk about the transition as we can just slide from the current state to a new state without anyone noticing.

No discussion for example of the resistance it might stir up from interests that want things to continue as they are, paying off as well as they are to the .01 percent, and what

² see the remarkable book, Bill_Gammage]_The_Biggest_Estate_on_Earth, about how Australia's aborigines tended the land holistically.

to do about defanging that resistance, which might have the militarized police on their side. In private many are increasingly making reference to the French Revolution, but nostalgically, more as a joke, than realistically. The GND discusses the problems of keeping below 2 degrees, but not much about the disruptive process that connects them or how people will cope with a simultaneous mix of collapses and opportunities requiring them to pick up and move, finding new if temporary communities to meet their realistic needs and have some security. The simple way of thinking is, how to build a progressive future that is adequate to the climate challenge and doesn't use 'progressive' as a platform for stealing from those who just want some security to live.

There are many experiments in the world related to Gardenworld, mostly experiments in how to grow crops. Gardenworld requires that we think through how to include humans in those experiments, how to create living spaces where children can run free and barefoot without having to worry about traffic and parents can let go of worries knowing that the community watches the children.

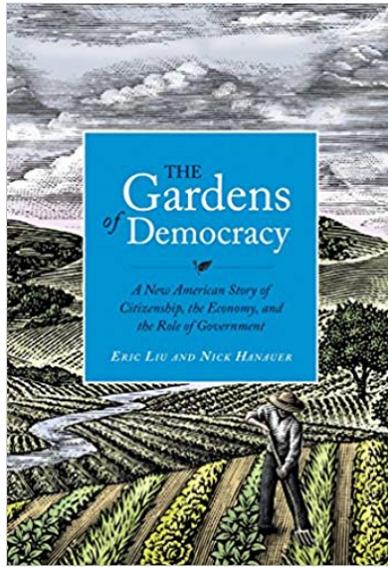
Gardenworld will require new forms of economic distribution. The second part of economy *nomia* in ancient greek meant *equal distribution*. Gardenworld require a new look at land and its management. It also requires something very hard - to shift our pleasures from owning to cooperating, from material stuff to pleasure in relationships - with people, animals and plants. Circumstances will force that, but may lead, instead of to cooperation and caring, to mafias and militarization. Hard work ahead.

I cannot stress hard enough how the ways of living of the most ancient humans has to teach us. The idea that *nomos* meant equal distribution started with the division of land in equal segments to provide for equal grazing of cattle. The evolution of culture was from equality towards hierarchy. By the time of Plato Laws means collections of legislations, a bunch of laws, not division of a whole into equal parts³.

Gardenworld is also aesthetic. From town to small secluded gardens, the architecture and the plants and the people should flow together. We need to learn from the landscapers and the artists, the architects and designers how to do this. It might be that the shift from hunter gatherers to settled groups was aesthetic - the plants looked good and could be arranged for effects. Gardens didn't arise from the failure of gathering but more often found in places that were rich in native growth.

In our rush to feed ourselves we may miss opportunities, creating "gardens" without people.

³ See Wendy Brown, the ruin of neoliberalism and she refers to but does not emphasize Schmidt's *Nomos* and his clarity around *nomoi* as equal distribution. as a way of dividing up the land. when it is first distributed.



Or



This very linear and mechanical despite the example of lush growth, beef and fertilizer in proportions that may actually work. But where are the workers or the children?

Compared to



Notice that these are different worlds, and, as we build, we should be aware of the implications of choices we make.

Chapter 4. Where are we?

This can be fairly short because most of us are fairly well informed and understand that climate is already changing and automation is a threat and governance is not working.

- Temperatures around the world are rising, in all places, and all seasons.
- More water is pulled from the earth and returns as heavier rains and stronger storms.
- Species are in decline
- The economy is brutalizing some to maintain the life style of the rest.
- Strong proposals: use less energy, eat less meat, fly fewer miles, don't quite add

up to what is needed.

- Old land use divided the world into parcels that no longer fit needs nor desires.
- Young people are confused about school, career, children.
- We are increasingly aware of the extent and fragility of systems.

We have used our talent to make a civilization out of our dependence on oil and coal, and encouraged population growth for more soldiers, more workers, and more consumers. We seem locked in because there is no way to stop burning that coal and oil, because it is - so far - necessary for generating electricity running cars, fertilizing fields, moving stuff around, in a crowded hungry world. What we are doing however while knowing the facts, not acting as if they were true. We have become fragmented and lack leverage to change anything and choose to go to sleep.

We are so used to having the media think for us with concepts like “per capita GDP” but as you know, one rich person can make the average go up while everyone else is going down. As we look at the state of the world and its civilizations, avoid thinking in terms of averages. People don’t live in averages.

It is much easier to see where we are on the material plane because material things are present to the senses - sight, touch hearing, smells even. But the more important part of where we are, culture, is invisible and has to be inferred from the way the material things are handled. This is crucially important for thinking about the future because, under the pressure of cascading events, there is likely to be a major shift in the way people treat each other and things. The shift from the christian culture of Europe to the market and merchant culture and on to colonization to globalization driven by the flow of money is the depth of change we should anticipate, maybe even in some ways welcome. The breakup of the monasteries and the craft guilds as the major centers of production in the later christian centuries, and the shift to markets and merchants and labor is massive. I doubt that a person living in one epoch could easily adapt to living in the other.

Where are we should include a discussion of systems of belief, feeling for the texture of reality, and the arguments it makes us likely to embrace or resist.⁴ I would like to go further into these issues but the purpose of the book is to drag you into GardenWorld.

We might have continued on in a more slow egalitarian and thoughtful path without

⁴ Highly recommend Jeremy Lent, *Patterning Instinct*, for a vigorous straightforward history of these issues.

the discovery of oil, the dark invisible matter under ground. The world was kind of OK⁵ before the discovery of coal and its marriage to steam and heating houses in cold winters.

Speaking of which, where we are is also on a planet that is not stable, but has been through many cold and hot spells, with major shifts in atmosphere, occasionally hit by large asteroids and even enduring flips in the magnetic orientation of north and south, and the slow motion collision of tectonic plates. What counts is where is earth now, what would it be doing if not for human activity, and what does human activity add to it, and then, what should we do?

We know there are going to be major effects but we don't know enough about their distribution in space and time. It is for this reason that a major piece of guidance coming from Gardenworld is, whatever else, build for flexibility, redundancy and mind changing.

Our current world has developed complexity that is not being well managed, maybe not even managed at all. Population, institutions, corruption, a struggling musical chairs middle class, militarism This is the core of where we are. But there is more we need to be conscious of.

If the French Revolution had ...

If Christianity had ...

If slavery hadn't ...

If native people had been appreciated ...

The French Revolution was the hurried continuation of the emergence of individual rights and concern for workers by threatening those who held great wealth.. In its drive for effects and countering rising resistances the revolution turned bloody and abstract, and we got Napoleon. Christianity started the guild movement and had a sense of rights and humanity of workers, but lost the initiative by focusing on its own bureaucracy and organization. It would have been a more global less nation based culture. Slavery financed the industrial revolution, but leaving a huge wound, still bleeding. Native people knew how to sustain the land and grew healthy people, till Europe brought smallpox that killed a hundred million.

But here we are. Most of us clothed housed and fed, but storm clouds keep passing and we don't ask where they came from nor whose community they will dump on. The

⁵ see Malm, Andreas, Fossil Capital.

long aftermath of the treaty of Westphalia, which established nation states to stop wars, set the conditions for new ones.

Climate is turning warmer - in some cases hotter - agricultural land is threatened as are the fish in the sea and the coming North of southern species, algae, jelly fish, tropical diseases, will require new ways of living to meet new concerns. Safety is less guaranteed.

I highly recommend reading Andreas Malm's *Fossil Capital_ The Rise of Steam-Power and the Roots of Global Warming*. And his *The Progress of this Storm*. Also *Uninhabitable Earth* by David-Wallace-Wells. By comparison, efforts underway or proposed are extremely weak though the number of test projects and inventions under way is a hopeful sign. But so far, taken together they do not yet scale to full fledged adequate solutions. There is an effort by a few corporations and government to shift to non fossil fuel substitutes, but the numbers are huge - maybe out of reach. Think of how many solar panels would be needed to capture say fifty percent of society's energy use! Just manufacturing those panels would have intense environmental impact - mining material, heat for manufacturing, transportation of raw and finished materials from mine to factory to installation. Some of this activity is altruistic, some profit seeking, some pernicious, but the secondary consequences are not being thought through. The most previous are the many articles that propose some kind of energy change without entering imaginatively into the lives of those doing - or being forced - to change.. We need to recall that the big oil companies knew use of oil would lead to increase in warming - but they hid it, run campaigns against it, paid off congress people.

We are not educated by government nor corporations nor media to grasp the scope of seven billion people living on the edge. But yet the general population is fairly well informed. They seem to be passive, even stupid, but not because they are not smart or thinking it through, but because they cannot imagine possible solutions that would leave their lives more or less intact. People are appalled by the lack of leadership. What is striking so far is the limited range of thinking by the younger leaders that are emerging. Problems are intertwined, wicked, having to be lived through since they can't be solved. But the younger leaders (got to start somewhere) seem to not speak to the complexities. Especially the problem of disruptions. This is where government and corporations fail to reach the level of adequate global management - neither in fact nor in aspiration. Those close to the top suffer from the same hesitancy - why say anything if you have no idea of what to actually do that would be adequate to the problem?

We lack imagination about the simplest like the effects of Burning the gas from one car gas tank is about 300 lbs (300!) of CO₂ put into the air. And then we have some

billion vehicles. We do have a fairly corrupted business community seeking advantage at the obvious cost to the rest. The corporations have done their best to keep us immobilized. But things are afoot and we don't notice. Many people have traded their home with its community for an apartment with an iPhone, paying rent to anonymous landlords. They didn't chose this, but increased housing costs led to a slow migration to the new conditions.

We now have a chess board of complex gaming for life where we used to see a simpler checkerboard. The simpler game of going to school, getting a job, having a family has turned to the much more complicated game of near daily re-contracting for work, place to live, how to spend time, and who with.

Half the population in the US live alone. We have a generation - those between 60 and 80 (or more) the majority that has no savings (only have of those have social security) and is retiring or being fired into an increasingly expensive world.

The landscape of homelessness is increasing. But most of the land is in protected private property and empty. The increasing homeless are confined to interstices between the freeways, downtowns and the railroad tracks.

Christianity as love of neighbor, or at least felt compassion, seems nostalgically gone. The christian community yearns for a bygone simplicity of life, property and security that never existed - and was never part of the christian vision . Somehow ww1, ww 2. The cold war, nuclear threat - conveniently forgotten. Most people fell for the opportunities of local advantage, ignoring those who are ghettoized, incarcerated, or rich. But local advantage worked for a minority of the population, those with good schooling, help from parents, good connections, and lets face it, luck of health, employment and spouse, while we thought it worked for most.

&

Technology is certainly a big part of the present. But as prices have doubled (say for a washing machine or refrigerator), incomes for most of the population have stayed constant and the number of disemployed has steady increased. There are costs to being a participant in society that make living at the lower end harder. Children need a lap top, commuting distances are further, and the result is the cash a family has available is less than it used to be.

Debt is weird. People are aware of being in debt but not aware that what they pay goes to the rich. The national debt is also for many rich a natural resource, a constantly flowing stream of wealth protected by the military and the police. Among people I know, owning a house (a second house often) that is rented and the rent pays the mortgage, tax and insurance is common. But note, at the end the owner owns the house

and the renter is back paying rent.

This is just one part of a very complicated pattern of paying and receiving, that is part of the governance and stability of society. But it is not working. On a typical day internet mail is passed along that offers opportunities for tech companies to get an advantage (“Use of AI to support innovation”, for example.) But at the obvious, if you think about it, cost to the rest of humanity. The email supports small group advantage rather than societal progress.

Part of what is at stake here is the need for stability in society, with stable roles around assets: neighborhoods, life style. People need to know where they are when they go to bed and where they will be when they wake up.

To create that stability, how much does a society need an educated elite? If so how are they to be educated and how rewarded? Elites may be necessary, but they then take over the development of the planet for their own benefit. But their efforts to respond are undermined and thwarted by counter proposals. Instead of focus we might get dispersion, fragmentation. More, does a society need a belief system that can hold them together? The towns that were dominated (graced) by a church steeple. Is something like civic architecture based on belief needed?

We talk of the right to private property as a key part of the modern state, but that actually was quite recent. Kings owned the whole society. The ownership of property is the result of struggle, competition, cheating, luck. And the result treated a right. But what a strange thing for a society that treats a right as ok to be owned by some and not others. This requires some deep rethinking as we move toward a different future. Very few of us will be content to have strangers move in with us because there is nowhere else for them to go. climate breakdown, natural and industry induced, has social implications in the way the environment supports where people live, how they are to eat, their morale, and culture. climate breakdown will produce migrations and threaten existing relationships. Rethinking land use is in our future and we should see it as an opportunity. I suspect that land use is one of the key issues for the future, driven by new population, climate breakdown, and changing sources of energy trending toward local energy production – which requires land for solar or biofuels. The Democratic and Republican leadership never mention this issue. Even “housing” goes unmentioned. The threat is so high and the fallout likely to be so extreme, but the living conditions for the lower half of the population are increasingly expensive, and there will be consequences. The hope in the “climate breakdown” debate is that technical and regulatory solutions will emerge – and we will not have to do anything. But the reality is that increased population and climate breakdown, will force the need for action. We

need solutions.

The promise of a better life after WW2 has not been realized. Progress for all turned into a privilege for ever fewer in a great game of musical chairs. The image of the future and the promise of progress have languished, under the pressures to adapt to “modernism”, through a failure of imagination, leadership, and resources. Both major political parties are stuck. Political attitudes are a way of saying “no” to the whole system when “no” is not something people can vote for. Is the apparent turning toward religion a way of saying “no”?

There exists a political agenda that 80% would agree to. Not an agenda of mere platitudes, but deep, dealing with real issues. It requires mixing a new business climate with environmental rigor and using health and education as enablers. At the simplest, simply turning downward the rising curves of inequality and environmental degradation would be sufficient for a vast increase in hope.

The merry-go-round economy,
working for those who are in it,
but marginalizes those who are not.

This book is based on the core idea that we have lost a public vision of the future. Democracy and technology no longer seem to reliably mobilize hope, but, increasingly, fear. And yet a direction already exists in the minds of most people, and they would embrace it if it were offered by the political leaders. The desires for a nicer home, a more livable community, more attractive vacations, nicer schools, more attractive places to work. TV ads for cars tell the story. So many are pictures of the car going too fast and almost out of control - our present life - while the world we desire is portrayed in raw nature without others or even structures. These hopes and images dominate consumer advertising but with no responsibility, just, to break out of the constraints over built high control modern environments.

The tendency is to think the economy is the dominant factor in our lives, but the economy and economics are determined in large part to what is happening in society: capitalism, class divides, gender anger, Look at the sequence from the breakup of the Roman Empire, the rise and fall of Christianity and feudalism, the French Revolution, Colonialism, WW1, the depression, WW2. The cold war and now, coping with a fractured polluted environment and a large human population. The transitions are powerful and while dangerous yet driven by hope. The growth paradigm is near finished. Can it revive with a deeply greening strategy? The question is difficult because

we might shift from material growth to a designed growth which is no longer so extractive of wealth from the earth, land and people.. “We can have growth without development and development without growth” wrote Aristotle. That second idea is shocking, and gives a serious nudge to rethink the meaning of growth and development.

This book is about that possibility. I want this to be an invitation to your participation in the extraordinary task of making a civilization that provides quality of life for all. we have been very smart about seizing opportunities but those opportunities have turned out usually to work for some against the interests of others. We have not been smart about the consequences of what we do. The beautiful challenge is to put together the planet and humanity in an attractive and working project. driven by necessity, pulled forward by its compelling attractiveness. We need a sense of the future which builds on all the worlds best thinking. This means calling each of us to the respect for human life in the world's religions and respect for the world in the exploratory curious and constructive sciences.

Climate, ecology, automation, wars, motivations. We face rough time. Apocalypse for many is not something coming, it is here. The transition will be disruptive of how we work, where we live, and if we are not successful also huge disruptions and uncertain future.

If we are unsuccessful huge changes will be imposed on us.

If we are successful, Huge changes will be necessary, implemented by us.

Private property in land used to exist in the context of public spaces, national parks, local civic centers, sidewalks, country roads used to lead past fields no one complained if you walked on or picnicked on. . The cost now of entering a “public” park is a real cut to the life possibilities of ordinary people who cannot afford the cost. Same with the art museums that in my youth were free and now maybe \$25. In catholic countries the poorest person had the right to enter the cathedrals and experience the high end of the art, sculpture, music and architecture of civilization. Today, in most places, no such access exists.

Where are we? Too many exponential curves driven by profit seeking. Capitalist organization of ownership and decision making is an extension of earliest humans reliance on the strong man alpha male. The unfinished French Revolution through reason is still in part in the service of human development through education, but elites are striving for restoration of feudalism.

It is important to know the history of gardens, farming, agriculture (they are not the same.) The struggle for urban population to force farmers to a smaller reward has been long standing. As a result farming life has been hard. Gardenworld is based on the hope that the need for food, especially locally produced, will lead to fairness and real cooperation.

This is the context - sketchy for sure, there are so many possible narratives - of where we are as we face climate breakdown and hope for a good outcome, the tentative place holder being GardenWorld, the essential blending of greening with civilization.

The modern

We have built a society where owning things is more important than having relationships. What is in play for Gardenworld (or any alternative) is the development of an attractive civilization and your own personal development as a thinking feeling reflective healthy person. Can caring, art, love, curiosity, appreciation replace “mine”, fences, door locks, anger, addictions? We must try.

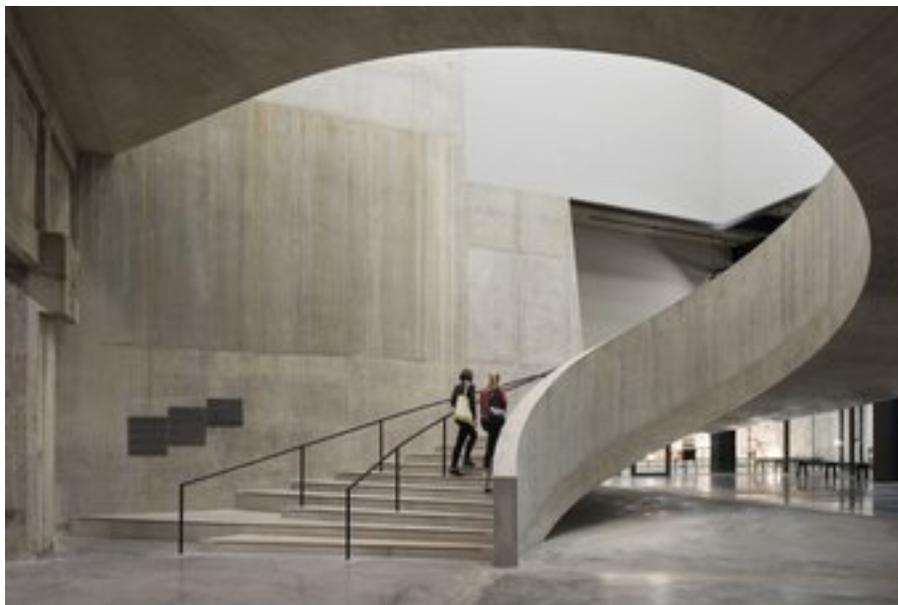
A growing population combined with the fragmentation of cultures has produced the incoherence and lack of belief that characterizes our decades. Few people have taken in the innovations of this culture, Picasso Stravinsky, Proust, Joyce, Frank Lloyd Wright - but they have taken in much of the material side of the modern with its mass produced plastic metal and glass. But even this it is class based: skyscrapers, jet travel (about 10% of the world population has flown) . The modern as a culture and society is a very complex interweaving of tech and culture and expanding population and new media, but weak on human feeling. The political attempt at democracy we have seems way too weak to govern such complexity, and old hierarchies holding on are preventing the innovations and imagination we need. The result is a breakout of irrationality that builds on human feelings without coherence of a culture. The emergence of science with its abstraction and its focus only on “truths” which hold for all time missed the emotional and the individual (only universal cases mattered to science) we got the rise of romanticism, and with it regressive politics of strength, violence and nationalisms.

The modern, as a replacement for the medieval christianity that broke down with wars, population and the reformation, is not an adequate culture. It leaves people too anxious, too competitive (meaning making losers of others).

Modern has already, in some parts of culture, turned to post modern and beyond to

trans-human. We see what happens when all thinking is technical in style and method, and we are not teaching about the humans to which tools are attached. There is little doubt that the future will keep some aspects of the modern even as the movement is away from modern being the central image of the future. Post modern so far seems to be lean and a bit mean, but this is being doubted. More interest in relationships and caring seems to be emerging. We have too many children who cannot draw nor feel in their hands any music making beyond button pushing. Human relationships require a development of the sensuous, a feeling for texture and the body.

The Modern is peculiar.



(Tate modern Gallery)

Swirling and interesting as if organic but cold as dry ice. To touch, the marble and the railing are cold and the feeling is one of potential falling. Attractive, interesting, but devoid of human feeling or care. Note how few people, no place to sit

We Westerners (the Chinese equivalent is easy to find) have been convinced that our superiority is the leading edge of an ever-expanding destiny. In the West that means in science, technology and abundance. In China it means longevity and coherence of the culture.

Modernity is dependent on fossil fuels. The quantity is almost unimaginable. A trillion tons of CO_2 each day. A car driven on a tank of gas adds almost a ton of CO_2 just by itself - one car? And we drive the freeway looking at the long stream coming toward us - and fail to imagine this weird use of energy.

But we long prepared for it, using black slaves the way we use black oil. Then facts of slavery are terrifying to anyone who looks. Slavery was the machine of British wealth and empire. Slavery profits financed much of the industrial revolution.

An over-reliance first on slavery, then coal, then on oil, “fueling” population increase. Populations breed till they come up against the limits of their food supply, currently dependent on oil for transportation, mechanization, and fertilizer. We are reaching limits, dependent on the tech mix and social organizations we use (building tract homes on the best agricultural land is not smart.). Humanity on the surface of the earth did fairly well, then coal and oil discovered, and humanity expanded to fit the new sources. Using that coal and oil under the earth led to our population and material increase on the surface, now finished. Not because we have used it up but because what was mined and pumped was burned into the atmosphere and the whole hidden world of fossil fuels under the earth is now surrounding us in the air near. This sets up crucial conditions for why we need Gardenworld. We are being killed by the ghosts of past carbonized lives.

To show more of the complexity (a major theme in Gardenworld is that we have lots to learn from the details of actual lived lives in the past), a long quote.

Iconologia, overo descrittione dell'immagini universali, an influential encyclopaedic repertoire of human images personifying abstract concepts, composed by the Perugian academic Cesare Ripa as an aid to artists and printed in Rome in 1593, had no image for Economy.¹ Only in the revised 1603 edition, consulted by Jan Vermeer and the artisans decorating Versailles, was Economy offered: a 'matron of venerable mien, crowned in olive leaves, holding in her left hand a compass, and in her right hand a wand, and having by her side a rudder'. This, Ripa advised, was her aspect 'for the happiness of common political life requires the union of many families, which live under shared laws and with them govern themselves'. And since 'for each family to support itself with proper decorum, it needs laws that are more specific and limited than universal [laws]', the 'private order of family government is passed on to us in a word that comes from the Greeks – Economy'. The literally familiar dimension of the word-concept *oikonomia* induced Ripa to suggest that artists who might wish to represent it should elaborate the profile of a mother 'with the wand signifying the authority the householder has over servants and the rudder signifying the care and guidance a father must exercise over his children'. The olive-leaf chaplet with which the woman was crowned further showed that 'the good Economist must of necessity keep the peace in her home. The compass marks how much

each person must measure his forces and, govern himself accordingly, in spending as in other things, to support his family and perpetuate it through careful [management].’ Guidance, consensus, measure: these were the characteristics of all good economy and, in virtue of this, ‘it is to be pictured as a matron, almost as if that were the age most apt for the government of the household, because of the experience she has of worldly things’.⁶

What is noteworthy here is the centrality of well lived personal lives summing up to an economy. We have replaced this focus with the market and finance. I highly recommend reading his chapter 6, including the footnotes.

Science is the weak leading edge of our expectations for the future. But what is science? We can treat it as a social institution that evolves according to its own criteria. But science has since Francis Bacon been an instrument of the state, of ambition, of power. It is skewed in method toward a focus on the eternal, downplaying the individual, the unique, the personal. In this way it is much more political than usually thought.

I like the view that science is a phase in the history of art that came into prominence as artists thought more about chemistry of the material for making art: dyes, bronze casting, pigments and binders. Science, as organized curiosity, is one of the great humanities.

The role science played in the evolution of economics is a study in shifting source of power in society, from agriculture, land and tax to craft, trade and finance. Quantity and calculation rather than understanding. Why did this happen? Great culture is human centered with recognition of the larger sense of space and time. Weak cultures are struggling with the conflicts of the moment with focus on the technocratic. In our time this come down to a struggle to mechanize the world⁷ or thrive in it. Take as an example, a computer playing chess (or go). When it “wins” it has no experience of winning. Humans play to experience the drama of playing. Not the computer, which has no experience of playing. It dies not knowing that it won. It is impossible to imagine a computer saying “that is disgusting” other than by a release of pre-programmed text the computer would have no experience of having said.

For economics this comes down to data sets that can be put in mathematical form: differential equations or matrix algebra. Science has taken the view that things that can

⁶ Manfredo, *From oikonomia to PoliticalEconomy*.

⁷ See Mirowski, Philip: *Machine Dreams: how economics became a cyborg science*.

be made into “laws” are worthy of science. Unique events not so. This is political because it implies that the economy should be left alone to equilibrate, avoiding interference by the state and the rest of society.

Mary is standing by herself on the living-room floor. Newton’s $f=ma$ tells us how much she weighs. But Mary sees Jane’s dropped handkerchief, which suggests a drama. Economics deals with things like the first but ignores (as unscientific) things like the second. But real life, including economic life, is vastly more made up of events like the second. This is important for climate breakdown discussions. Economics talks easily about shifting energy source from fossil to wind and solar but does not discuss how Harry will need to get rid of the family’s gas heater and replace it with electric. Who pays? How many such heaters have to be made? How long will it take?

If science was interested in the world it would explore both kinds of events. In that sense science is not scientific but ideological.

Tech is the extension of the human body and mind - this is conventional hope. Tech is also the suppressor of the human body and mind. War, prisons, invading technologies which make us passive. Surveillance moves people to remain in conformity. Amazon is moving toward sending me books it thinks I may want and I can send them back no charge if I don’t. Google knows who I will vote for, or should vote for, before I do. When will someone just suggest that Google actually vote for me, since it knows better than I do which candidate favors my interests?

Here is a fantasy. You get a note from your iPhone this afternoon reminding you of a meeting you have in two days. The note says a driverless Uber will pick you up at 1 in the afternoon, conveniently after lunch, to take you to the meeting. (Place unspecified click for more information). Also here are attached two papers you should read before you arrive you will be expected to comment on. In two days, after some more messages, the car is in front of your house and shortly you arrive at the meeting in a place you have never been (click for more information). You walk into the meeting - all formalities handled by your iPhone and electronic badge. You listen, are invited to make a few comments, and get a message on your phone “A driverless Lyft will pick you up and take you to a hotel because at commute time traffic would take too long to drive you home. We have arranged for dinner at 7 and arranged a date for you. Have a good evening Your loyal Everywhere Concierge.” The next morning picked up and driven home.

Very convenient, but you were never engaged as a person, yet armies of young are working to make this a reality.

Tech is complicated. We have never been able to figure out how to integrate it with democracy. We did not get to vote on cigarettes, TV, nor cars but these are market rather than democratic procedures for making social decisions, one dollar one vote. Advertising replaces conversation.

The earliest compounds - walls around a collection of huts- wee long considered means for keeping others out, to avoid their stealing crops, cattle, woman and children. It turns out those walls were to keep prisoners in and early humans fought hard to stay outside. Inside was a loss of diet, freedom to move, slave labor (how much of modern society is like this?)

In the flow of technology and power, money and status, in a bath of fear and insecurity, empires clashed and millions died in the 20th century. It is hard to recall the scale of those events, given that contemporary events, such as Iraq, Grenada, Afghanistan, are so much smaller in scale, and even Katrina was small in comparison to the great wars of the last century. But huge movements are afoot today, stalking in like Eliot's London fogs. The flow of digitalized property, dominance of financial institutions, people pushed off the land, and the promises of new bio and nanotechnology are flooding our old expectations. Space, time and life are redefined. Not what they are, but what we do with them.

Obvious tech will be a major part of a successful GardenWorld, but how? I take as a model the career of Fredrick Law Olmsted who used parks in Boston, New York, and others as the liver and kidneys and lungs of the cities that surrounded his parks. He used the capacity of nature to clean the environment. But he also enhanced the beauty of each project and made it a real extension of the quality of life of the people. Try to imagine Manhattan without Central Park.

If we think of Olmsted's approach to the aesthetics of the land and its use of the technology of his decades, we now face many more choices. We have probably overused cars and roads, but autonomous cars widely owned may reverse this in interesting ways. Air traffic is out of control and greener fuel use not yet obviously achievable.

But there are many other parts of tech in GardenWorld. The Internet will allow, among other things not so terrific, the sharing of best practices across decentralized communities. Humanity is much more aware of innovation and imagination in all things, and this is being applied to an increasing range of organic practice, in food production and decorative gardens. Standard agricultural and landscape practices are going to be vigorously modified.

The human species is successful, to the point of outdoing itself. We are in a terrible

balance between the technologies of living and the technologies of war, and between tech that serves special interests and what serves the general good. GardenWorld is aimed at creating the conditions for a better balance, with much less war, and a meaningful approach to population and climate. Which means being smart about energy and agriculture, water and pollution. Technology is not going away and it will either be used to further centralize power and authority or to help open it up, as in the promise of the Internet and be a major part of GardenWorld. This chapter is not going to be a Whole Earth Catalogue of potential GardenWorld technologies, but a framing for essential tech choices in the context of politics, economics, and human nature. It is obvious that tech and community are in many ways almost the same topic. because no tech will take hold unless it is attractive to actual humans with their desires and ideas, their culture and image of life.

Integration of humans and nature

Tech has evolved rapidly, in a process probably still accelerating. In this context, tech has taken the role of religion, a belief in an all-powerful force that can save us. On the extreme, we have writings like Brian Arthur's 2009. *The Nature of Technology: What it is and How it Evolves.* and Kevin Kelly's 2010 *What Technology Wants.* Both look at technology as evolving without human participation, as if parts of tech automatically unite. Obviously, this cannot happen unless humans see the potential of a new combination of technologies, and that means a better understanding of what is on the minds of those humans. The Aztecs had wheeled chariots as toys for kids but did not make adult models for work. Why? because humans would rather fit in than innovate.

But "fitting in" is not just a blind reaction to circumstances. It is feeling good about belonging by getting in step with the dance of one's civilization. It is conversation, rhythms of work and the day, it is relationships in all their complexity. Those who choose to innovate in the traditional world are doing something quite strange and Of course, serious innovation did not appear until quite late, perhaps the 13th century. The innovator's world is often lonely and, as a social mechanism, relies on the single inventor and the small market that is attracted. Innovation makes small moves that are isolated from the rest of society, and society becomes an ensemble of such small moves. Anything like democracy doesn't apply to the paths that emerge. "One dollar one vote," goes the logic, but the outcome can be a random walk away from the centrality of human concerns, starting with survivability - witness climate breakdown through fossil

fuels - and the resulting system is a hodge-podge of incommensurate pieces and fragile to shock and maintenance problems.

The cleverness of innovation is not a high priority for most people in a society. A small percentage enter into the financing, the banks and venture capitalists and a very small percentage are producing the actual innovation, motivated usually by money. The broader society is indifferent, just trying to live their life with a desire for a background of stability. Advertising enters in as an industry trying to link innovation to customers and take their cut from the money flow. Though it must be said that retirement funds are dependent on that financial activity, which makes a large part of the population complicit in the necessity for growth. How much pension funds can live on dividends and not on "growth" is a good question.

The drive for innovation probably only becomes a strong motivator when the innovator is in some state of alienation from society. To get the best of society and innovation aligned we need a heightened awareness of the purpose of innovation beyond ego and money.

What we need is a commitment to reworking the integration of nature and humans and then the technology that will be needed to support that integration will be more obvious.

But we do not have a good vocabulary for that integration. Even the words fail us. Just as "law" is used in most cultures for both the basis for the legal system and the regularities of nature, we are facing ideology masked as words. Nature, human, human nature... They don't get at what we want, which is a recognition that human nature is part of nature but not reducible to a mechanical view of what nature is: that who we are is profoundly interrelated, with air, water, soil, geography, love, literature, and meanings. Think of Jarrad Diamond's *Guns, Germs, Steel*, showing how human fate and large geographical features are defining for human possibilities.

Our ability to be reflective, relatively underdeveloped or at least underutilized, gives us the capacity to play out the integration in a way faithful to both. Surely the better human is in better connection to the environment inside and out, body and earth. Our thoughts are supported by our body which is supported by the environment, which is affected by what we do. It is a complex circle from the environment through our body and mind and back.

GardenWorld is not an anti-technology project. There are too many of us, and it is too late. We need the smart use of technology in all forms: biotech and nanotech at the lead, with an Internet infrastructure. Most of us have hoped that the Internet would be an infrastructure for democracy allowing us to take place seriously without giving up

the cosmopolitan world of serious interaction with other people and societies. But we also have our worries. One danger of the Internet is that it encourages democracy for all online, but may support a political and economic process that leads to democracy for none in the real world of jobs, land, food, energy, security, and services.

The standard alignment of technology with “progress” is unfortunate. Progress is highly aligned with growth for the sake of profit. It is a smokescreen for hiding the social costs of change, change that often leads to wars, pollution, and the trashing of communities. The processes of change really are supported and encouraged by a small part of the population. This argument is hard here because most of the readers of this book are in that minority, a minority that makes its living through inventing, implementing, selling and maintaining change.

The idea of progress, with its thrust toward the future, makes all “present” less interesting, discountable. Reproducing the present is not a project of much good for those who live by growth alone.

Aristotle wrote, “we can have growth without development (adding water to wine) and we can have development without growth.” The better picture might be, not progress, but selection. How do we select from what we have what we really want, and make more of it? It might be leisure, art, relationships and thinking about the meaning of life and our own contribution to it. If we could free up technology from “progress” we could use it to enhance life, not replace it.

Part of this is the political question of who decides and who benefits. Elites have always used tech to control and exploit the population, win wars and look good. This will not go away but it is open to pressure, including revolts, to rebalance.

The issue of balancing so that the environment and humans both survive – and thrive – will require smart design and lots of tolerance in policymaking. Bucky Fuller once wrote “we have the planet and a few billion people. Putting them together is just a design problem.” But it will require us to be smarter than maybe we can be. Over-reliance on protecting old structures will get in the way of needed experimentation. Yet the old often contains unrealized possibilities. Needed change requires the full participation of the old and new, rich and poor, grassroots and abstract thinking, and the promise could be cut short by authoritarian dominance. The great spoiler of our better future would be increasing polarization of what has been often called the have’s and have not’s, but really are the over consumers and the under consumers. The difference, if we are honest, is based on circumstances of birth and access to paths of “advancement” in the current arrangement. We need a new arrangement. The technology issues get at the core of the existential questions: who we are, what we can

do with our lives that make sense. Narrow technical/ financial choices are to be avoided.

Tech has always been encouraged and chosen by elites to enhance their grip on things and milk wealth from the epoch.

The social contract that ties us all together is broken. Elites needed workers in agricultural and industrial society, , but maybe no longer. If we are to survive, nature and the humans need to be worked together, with their dignity enhanced, in mutual respect and perhaps even love.

“When Heaven and earth are united down comes sweet dew.”(Lao Tzu chapter 32).

Humanity and technology are intrinsically bound together. Early technologies are easy to forget – language, song, fire, pottery, weaving. Much was copied from the observation of other species – how they hunt, dwell, organize, decorate themselves. Our current advanced technologies are easily seen as extensions and elaborations on much earlier technologies. Internet and voice over smoke signals, rocket launchers, and slingshots, cars, and horses: roads are still roads, after many millennia.

The choice of war and power

The use of technology to enhance daily life is often overshadowed by war and power, profit instead of community. Humanity is in a crude balance between the technologies of life and the technologies of war. The result is not going well. New technologies have continually upset the balance and the deciding factor is: who gets to make the choices? Our dependence on oil has invaded a previous society of villages and craft and farms and fundamentally changed its character at just about every point. Moreover, it created a new ensemble of corporations that, through their owners and regulations, have a powerful determining effect on what our future course can be. As that industry and all who make a living from it is threatened we find they are fighting with everything in their power to maintain their economic dominance. As a shell executive said when asked by a reporter about green technologies, “When the new green industries are mature we will buy them.”

The general public view is that such use of tech and money is responsive to threats, but there is another uglier side. War can be used to burn cash that otherwise would have been available for social good - education, health, greening.

Technology and finance

Another threat to technologies that can support GardenWorld is the financial community. Finance was created as the mechanism to make capital in the social system available for projects. In fact, it was created by people who held previous profit as capital and wanted to make more with it. The story of capital funding projects for the population that desired goods is belied by the history that says early finance was mobilized to lend money to Kings for national wars. Yet the system more or less worked. Interesting patterns of public belief and realistic conditions in the world led to cycles and depressions and then new euphorias.

In 2007 financial services were on the order of twenty percent of the entire US business, activity crudely summed into GDP, way too much, making finance not a service to economic activity but a core piece of economic activity itself.

But worse, over forty percent of all profit in the US economy went to finance. Its participation at 20% yielded 40%. As finance led corporations to be downsized, divided, arbitrated, merged – all so fees can be made on the transactions and a percentage of the extracted “savings”, as those responsible for the future of the corporation, innovation labs, and marketing, are reduced and productivity, the amount produced per worker, increases. Carlotta Perez, the Brazilian economist, has eloquently analyzed how such a diversion of profit from the productive ground means that less money is available for investment in new tech. She has suggested rather strongly that the promise of, for example, computerization, moving from broad adoption to ubiquitous computing, has just begun, but cannot be realized without much more capital investment, capital which is not available because it is off bubble making elsewhere in the economy, or invested in private islands and safe enclaves.

Technology is deeply “owned” by money. And the partnership continues with the problems of climate breakdown and global systems collapse. In tech circles, much recent discussion is on the ability to bubble the green. In an example, I know an engineer had a very clever technique for distribution of a green product. He went to the bank with a business plan and asked for ten million. The bank said “too small.” Our hero went home, scratched his head, did some more numbers (they are very plastic actually, despite the reputation for exactness), and came back and asked for a hundred million, and got it. 2.5 million went to legal fees and a couple of percentage points up front for bank fees. The whole deal depends on the continued existence of some fairly obscure federal subsidies. If they disappear, the project fails. But the actors don’t care. The bank, the lawyers, and the borrower all were paid off.

The problem is, this kind of operation continues the process of making the rich

richer without much work (having become rich the game is to lend money) and helps continue the bad distribution of wealth in society. In this transaction, technology is seen not as a way to solve social problems, but as a way to make money. The balance (never 100 % either way) shifts between product focus and deal focus.

My understanding is that this use of technology, helping put the society at risk in terms of wealth, is giving it a bad name. People are not happy with much current use of technology. Technology advocates, in fact, seem unaware of the negative consequences most non-technologists have a feel for. The obvious, Hiroshima, Chernobyl, thalidomide, pollution, climate breakdown, and turning to the dominance of finance based on computerization.

This gets crucial as we consider earth crises including climate breakdown. The sustainable future, given the size of the population and dependence on tech, has to be a high tech future, especially using nano-tech and biotech in combination with small local craft production. This is a new world, and it can be an attractive one, but if technology is seen as self-serving of financial interests, the willingness of the public to support

There is no question but what rethinking tech and society is underway. I have long admired the mayor and now ex-mayor of Bogota, Enrique Peñalosa, who exhibits humanity and imagination as he forthrightly questions the role of the automobile (“auto” implies it goes by itself- better to call it the oil-mobile).

Man With a Plan Interview by Deborah Solomon

Q: As a former mayor of Bogotá, Colombia, who won wide praise for making the city a model of enlightened planning, you have lately been hired by officials intent on building world-class cities, especially in Asia and the developing world.

A. What is the first thing you tell them? In developing-world cities, the majority of people don't have cars, so I will say, when you construct a good sidewalk, you are constructing democracy. A sidewalk is a symbol of equality.

I wouldn't think that sidewalks are a top priority in developing countries. The last priority. Because the priority is to make highways and roads. We are designing cities for cars, cars, cars, cars, cars. Not for people. Cars are a very recent invention. The 20th century was a horrible detour in the evolution of the human habitat. We were building much more for cars' mobility than children's

happiness.

The question of the control of technology has been around for a long time. What is often missed is that the problem is not the tech but those who invest to develop it in ways that are self rather than socially serving. Technology is part of a solution to a real problem. Writers like Erik Erikson and Erich Fromm shared a belief that humans have the instinctual energy of animals, but not the instinctive hardwired solutions animals are born with. For humans a rigid pattern of inheritance of the well adapted animals gets replaced with open-ended culture: beliefs, habits and technology, Culture becomes the “second nature” that provides us humans with a way to live, work, and mate. Obviously, technology, from pottery and speech to the Internet and genetics, forms the core of our “second nature” capacity. But the underlying emotional integrity, the integrity of the instinctual, remains intact, despite whatever technologies emerge. Mood and mind-altering drugs can only play on the chromatic spectrum of feelings given by our inheritance. Genetic modification, by playing with our DNA, and all efforts so far are for profit, is the new mouse in the inkwell of the human story.

GardenWorld raises the technology issue to one of policy and choice – what kind of world do we want our efforts to work toward? The more open culture of GardenWorld should support our rethinking the mix, development priorities and ownership of technologies. My hope is that shifting social awareness toward GardenWorld will lead to market corrections and make much of this happen without much interference. Simply removing existing subsidies on old technologies would do a great deal, though it is increasingly realized that these may not be enough to move us toward graceful sustainability. Part of the reason why such changes are not enough is that those “old technologies” and “existing subsidies” are a very complex web of interwoven institutional arrangements that are getting in the way of technical innovation for human good.

Freeman Dyson argues persuasively that three facts will take us toward a new green civilization: solar energy, which is vastly distributed; genomic innovations which can create crops that otherwise could not grow; and the Internet which connect everyone and make knowledge of solar distribution and genomic innovations more widely available, because of access to power and money, less meaningful. Being in the flow of relevant information and sense of participating in the leading edge of the culture(s), have the power to create a better future through the widespread distribution of the knowledge.

This optimistic view has to be seen in the context of the difficulty of governing society. Dyson does not touch on this issue. The tendency is toward centralization of

wealth and power through the use of technology. How inevitable is this? Are we locked into a move towards soft fascism, or is open more democracy still a real possibility? The way we use technology, and the way we make choices, will be crucial. Dyson's argument is typical of technological enthusiasts: our solution, widely adopted, will solve the problems. But this leaves out how and by whom it will be adopted (and modified). Technical solutions are different from biological ones in that they stress survival along a few variables, such as more output of electricity. But nature looks at all the contingencies that are present in its living field. As a result biological "evolution" is much slower but more accurate than technical "evolution." Bringing in a greater sensitivity to the full implication of a new tech, what are often called "secondary consequences", will be very important in the future, or the population will turn against tech in destructive rage (It had happened before, from the principled Luddites to those who murdered Lavoisier).

Technology plays a central role in GardenWorld, but by using its understandings to enhance, not suppress nature. The conquest of nature, its replacement by machines and sanitized living, is the current official future. GardenWorld moves towards a balance and integration of project, design, and problem-solving, with an appreciation for the flow of the environment, the seasons, and growing. Bio-mimicry, from products to arts, extends the natural and the technical in mutually compatible ways. But this requires deep understanding and involvement with nature and technology. I have met a number of young people, say at Planetworker meetings, who have several degrees in diverse fields, say a first degree in technical and a second in ecological approaches, and they have traveled the world and worked in demanding projects in the poorer regions, inner cities, or rugged environments. They are models of what we all need to learn.

Understanding technology is one key part. The problem is for a generation that grew up with computers, games, cell phones and cars they never thought to try to repair, technology is treated as a background reality, not something man-made and political and financially managed. A project such as that of the Dutch Architectural Firm gets at the immensity of what needs to be considered.

Perhaps MVRDV's most ambitious theoretical exercise was the traveling computer installation they called MetaCity /Datatown. Predicting that globalism and an exploding planetary population will push certain regions throughout the world into continuous urban fields, or megacities, MVRDV conceived a hypothetical city called Datatown, designed solely from extrapolations of Dutch statistics. ("It is a city that wants to be explored only as information; a city that knows no given topography, no prescribed ideology, no representation, no

context. Only huge, pure data.”) According to its creators, Datatown was a self-sufficient city with the population of the United States (250 million) crammed into an area the size of Georgia (60,000 square miles), making it the densest place on earth. MVRDV then subjected this urban Frankenstein to 21 scenarios to see how they would affect the built environment: What if all the residents of Datatown wanted to live in detached houses? What if they preferred urban blocks? What could be done with the waste? (Build 561 ski resorts.) What kind of city park would be needed? (A million Central Parks stacked up over 3,884 floors.) “The seas, the oceans (rising as a result of global warming), the polar icecaps, all represent a reduction in the territory available for the megacity. Does that mean that we must colonize the Sahel, the oceans or even the moon to fulfill our need for air and space, to survive? Or can we find an intelligent way to expand the capacities of what already exists?” nytimes.com/2008/06/08/

Once we understand the dynamics of mathematics, and its appeal to the compulsive prone mind we all share, we can better understand the problem of why and how societies chose their technologies. Technologies are attractive because they imply a degree of control that is mostly illusory.

Let’s face it; technologies replace the complex with the simple. No human invention is more complex than a frog or even a blade of grass. The machine is designed to be coherent without reference to its full environment, but only to the most limited aspects necessary for its participation in some part of current society. But the frog or blade of grass is clearly part of a whole system of which the foreground and background are intimately interwoven, of seasons predators and prey.

Both technology and corporations are simplification machines, replacing complex process with simple ones in the case of tech, or taking complex outputs and reducing them to simple inputs in the case of corporations (skills and culture and raw materials in – product and profit out.)

Joseph Tainter, in his powerful 1990 book *The Collapse of Complex Societies* shows that those who have power misuse the technologies available to them, seeking more power and profit, seek ever more complex and expensive solutions to the next challenge facing their civilization. Civilizations collapse because the increasing costs of complexity overtake increases in productivity. The elites are the elites because they own the infrastructure of the state (as in GE, Shell, and the Carlyle Group, ConAgra and Citicorp) and, when things start looking bad, instead of trying to fix the system, they ramp up their exploitation of it, to get the cash to survive, by cutting costs, which further degrades the systems performance and capacity to innovate. Watch how those

institutions are able to take the federal budget and bail themselves out, as has been happening with Bear Sterns and others.

Some argue that technologies are neutral, but almost all invention is done up with a market in mind (Or, in earlier times, to attract the support of Kings and ministers, not bakers, bricklayers nor mothers). There is a web of feedback such that as society chooses technologies, society changes, which in turn changes its priorities for new technologies. The result is not a clear causal chain but a true mess of feedbacks and resistances. A few sellers, a few buyers, and a trend can be set. Take tobacco and compare the incredible costs and the extraordinary effort that society had to take to reverse a decision made by a minority of the population as what was ceremonial in the Native American World, became big business, stimulating slavery and shipping and land settlement (The first slaves were brought to the US for tobacco farming) in the British Empire. So too for the car, the phone, and a computer. Stories of their deep penetration in the society is not a story of decisions taken either in a democratic or a more authoritarian way, but based on the small number of decisions made by critically placed people, decisions amplified by the “ah ha’s” of multitudes seeing local opportunities, such as having a car, a cigarette, or a cell phone, and avoiding thinking about systemic costs. The railroad is a good example of how an invention, improved over time, provided the opportunity, and then men with means brought together political and economic arrangements to make the railroads happen. The outcome was social good and social damage. [fn: see the wonderful exploration of the early observers of the railroads in Leo Marx, *The Machine in the Garden*. The choice was made by the economic opportunity which engendered new economic opportunity – realistically available to only a few. i[i]

In traditional societies leaders feel themselves to be part of a culture and community, and the choices they make reflect shared tastes while also enhancing their power. The leaders and the led remain part of a coherent culture of interdependencies. Take for example the Italian hill town or city-state such as Florence. Things cohere. The leaders can see from their windows the people, the essential farmers, and potential soldiers, all those the leaders are counting on to enhance the city.

Industrialization maintained this pattern because it required workers and it required managers to hold together complex systems. Information systems weaken that connection.

Late industrialization broke apart the interdependencies of industrial owners with managers and workers – first to be noticed were the missing workers, then the disappearing managers, but they really lost out together, as we now see in the de-middle-classification of so many who used to feel quite secure. In modern times, given

that the economy of capital tends to set the capitalist in the midst of his owning, choices made fit the limited sense of taste and opportunity offered to the rich: Hamptons, Paris, Resort Islands, shopping, cars, boats, clubs and spas. and this world of choice is not inclusive of the rest of the surrounding population. It is remarkable how many trophy houses do not have places to create art or otherwise experiment with aspects of culture.

The result is a continually distorted community. Cell phones on airplanes is a good example of how the balance between economic opportunity, customers and annoyed non-users will play out. Look at the way FedEx made us feel good by allowing us to look up a delivery on the Internet – saved them from having to answer the phone. Much more irritating are the many phone button choices necessary to get to a correct line and then a long wait. In these cases, corporations are passing off the costs of transactions onto the customers. Sometimes increasing but more often decreasing customer well-being.

Tolls on highways and higher plane fares play into class lines. With GPS it will be possible (London is doing this) to tax on the basis of use, but since the rich can continually move rules and incomes to their advantage, they can cover their new costs in such a way that at the same time increased costs are born by the middle class downward.

We do not have any democratic mechanism for deciding what technologies will dominate society. People used to define themselves as citizens where voting was the way they made their important choices. Today that identity is fading and replaced by that of the consumer who makes choices with dollars. The technologies that win do so because of the dollar votes of corporations, by their high payoff, and the manipulation of regulations, from bandwidth to building codes.

The imagination of the reader can further integrate how the quantification of society and money, the mechanization of things, and the impoverishment of people all go together. We have created the dominance of the economy with all that is good and distressing about its dominance as nearly the “only game in town” in the modern world – “Machine Dreams”.

Stephen Jay Gould argued that the only reason we have not been visited by intelligent life from other parts of the universe is because no species has been able to develop the technology to get here along with a strong enough social system that prevented collapse through technology. Nuclear war always precedes intergalactic travel.

Dee Hock, who started VISA said: “The purpose of business is to separate the consumer from the conditions of production.” That is, bad working conditions and

environmental impacts are part of the cycle but unseen.

A problem is that key trends associated with our current economy, especially the marginalization and impoverishment of too many people and the destructive effects on the environment, probably are not reversible under the current rules. The forces making the rich richer and the rest poorer are systemic and powerful. Powerful because the motives to make it this way are huge payoffs in dollars and power.

I think we see that we need, for our sanity, an alternative path – actually system – for the development and deployment of technologies, a complex path large enough to be a viable alternative to the momentum of the current system. I say “large enough” to make clear that partial solutions are not strong enough to create a new set of rules.

Government financing of elections, rather than getting the media exposure that benefits the largest donors to a campaign, might be one of the essentials, lessening the power of money in congressional choices.

It is not going to be sufficient to just add on mechanisms which alter the balance but keep the current forces the same. This is the approach of many of the non-profit socially motivated organizations – they thrive on opposition to institutions they assume will stay in place. We need to prune.

In the county where I live, the green progressives are against the use of “packaged waste disposal systems” because they would allow people to develop on land that otherwise is unbuildable (lack of septic system possibilities). The result is that progressive environmentalists are against a technology that would help the environment. But the county manages to point out that the only people applying for permission to use the new systems are indeed those who have land that otherwise can't be developed. The leadership of bringing the two together to work a deal – permits only for land that would be conventionally suitable – does not emerge. Hence the shift to a new technology that, system-wide, would be an advance in terms of costs to owners and to a better use of water which could be returned to the proximal land after processing

I think it is still true that most engineering and science students and professionals have some view that technology and science will be of human benefit. They also believe that the fruits of science and the great inventions of mankind should be owned by society and not by individuals or corporations. When pressed, they will have a hard time supporting this belief with arguments. They tend to think that individuals are real and a society is no more than the aggregate of its individuals. So they will tend to support the idea that, yes, if something exists, it must be owned by somebody or some group of people smaller than that of society itself. The very meaning of “us” has shifted.

If one is a member of several generations of the well-adapted middle class, "us" no longer includes a sense of citizenship that spreads further outward into the population of different geographic origins and economic circumstances. Newcomers, either as children born in the nation, or immigrants choosing to come into it, align with the existing society, and adapt to living within a narrow sense of "us".

Probably neither democracy nor a government of the expert elites can make adequate choices about technology. Democracy does not frame the issues, and elites frame the issues for their own career enhancing interests. Here we are on the leading edge of the need for new thinking about governance. Many, but not enough people, are thinking about the ethics and wisdom of technical interventions. It started with Hippocrates thinking about the ethics of medicine and saying, "First do no harm". We now have the "Cautionary" ii[ii] principle which is a way of asking for more time to understand the implications of what we're doing. "Sustainability" is another way of saying let's keep doing what we're doing without rocking the boat. The shift from "sustainability" to "sustainable development" is a rhetorical opening for a Trojan horse of keeping things the way they are. Things have to change in order to remain the same." The values behind the idea of sustainability are guidelines but hard to apply in practice. What is sustainable for a bank is not the same thing that is sustainable for a small scale organic Farmer, or for a salmon fishermen. And "cautionary" just slows down the process which might not be the best when facing dramatic climate breakdown or the discovery of a severe new threat, such as bird flu.

The problem of tech is profound, and vastly limits other aspects of life. It is fair to say that politics is the supreme form of social innovation from early empire days, through the renaissance when authoritarian nation-states came to dominate. But technology has undone this dominance, and it may be that technology, in combination with elites and finance that use it, is the determining fact of our lives now the way politics was in the past.

In fact, politics now is just a tool bought and manipulated by the combination of tech and money. The implications here are powerful and suggest that GardenWorld will come about more by thinking about technologies than by politics. Technology, because of its interconnections, is increasingly important to governance and hence to the combination of state and corporations.

Technology is an extension of the body. Just as it would not make sense to discuss the meaning of a disembodied hand or eye, it does not make sense to talk about the meaning of technology without reference to the person or persons or community of which it is an extension. Hand and eye only take on significance when seen as a part of

a person, and persons in a community of symbols and discourse, and community in the environment to which it has adapted itself.

But technology tends to remove us from the body and history. The way we slaughter an animal or make wine were and still are complex processes, but the way we interact with them as consumers removes us from the organic, soul-making (strong feelings that provoke reflection and awe about “nature”), and experience enhancing ‘meaning’ of the use. At the same time, we have created “jobs” where labor is paid minimally to do these things, not to feed a family or a community, but working ten hour days cutting up cattle or chickens, which have been treated badly through their life, for unseen millions.

Computer manufacturing is, so far, a very dirty business, and hence is located in parts of Texas, Mexico or Asia, where folks like us will rarely show up.

Many people live difficult lives and their economic difficulties are combined with the complexities of technology. A local clinic sees a mother who has five children; two by a first marriage and three by her current husband. All three parents have different racial national backgrounds. The mother’s mother lives with them all in a two bedroom apartment of a total of 600 square feet. The grandmother is there to help but is tense about the racial differences and takes it out on the children. All three of the adults living in the apartment work part-time jobs in order to survive and the husband has two full-time “part-time” jobs – that is, jobs paid by the hour with zero security in local grocery stores. His main aim is to get enough money for a down payment on a House. Technology for them is simple: car, phone, the television, a shared washing machine, heat, and air conditioning. We need to be aware of how in the web of events and other choices of technologies by the rest of us affect the many people whose lives are like this.

In the county where this family lives population growth is predicted to be 30% by the year 2030. Yet all existing housing is more than filled and to new permits are very few. Land use, population, technology, and the economy set the conditions we have to cope with.

The major political issue in this century may be technology. It goes to the core of war, economy, the environment, and poverty. Nanotechnology, hydrogen cells and biotech for medicines, foods, and growing things like continuous wood panels, will arrive rapidly. The issue is that these technologies will be mechanisms of money transfer to the owners, not social benefit. They are high-cost investments, and owners will seek power and rewards. In order to work these technologies, of course, must attract enough customers, managers, and regulators, but that will always be a subset of society, not the whole. Every change (and not changing) has winners and losers.

As we face climate breakdown we can see how hard it is to make changes because

the losers, in that case, traditional lines of business, have a lot, they perceive, to lose.

During the Y2K period, much work was done inside organizations to cope. This made Y2K a “non-event” by actually making it a big deal.ⁱⁱⁱ[iii] What I learned, working as a consultant where Y2K one of the emerging issues, was that with Y2K accountability could be assigned internally to the organizations. With climate breakdown, that is not nearly as possible, so I think dealing with climate breakdown will be much harder. We are beginning to see movement however at the more macro-political and economic levels that are beginning to address the problem. We will see (and participate, willing or not).

An image of GardenWorld as the goal, the design principle, would help clarify what is at stake in climate breakdown, and provide guidance and motive to make climate breakdown innovation more attractive and livable.

Dealing with climate breakdown will require lots of flexibility and innovation and critical thinking. Just recently there has been a discussion of the problem of planting trees as CO2 traps – the reality is that trees absorb heat and heat the atmosphere more than offsetting the effects of the trapped co2 sustains cooling.

Technology and the mechanical often are seen as repressing life. GardenWorld is an approach that highlights the organic as we learn to integrate tech in ways that enhance rather than replace nature. The aim is a better world for all, through the use of human reason in the context of compassion and imagination under the guidelines, the design template, of the human life cycle, remembering that technology is only part of the human condition and only partly constitutive of human nature.

The idea of design could be a big help. Design is about the way things are put together to meet human needs and realities in ways that are attractive and implementable. As we shift from small part systems to truly holistic awareness, design may be the core discipline for putting it all together.

8

This section should convince the reader that computation is not an aid to existing society, as originally understood, but its transformation. The computer is moving toward obliterating individuality, the organic, the transcendent. It is fascinating but a major threat to humanity. Anything that a computer can do is with known categories. It

⁸ add Leo Marx *The Machine in the Garden*.

Arthur, W. Brian (2009-07-24). *The Nature of Technology* (Kindle Location 366). Simon & Schuster, Kindle Edition.

cannot introduce new ones. It is a totally terrible way to deal with a changing future. Take earth temperature as an example. Before we looked at climate breakdown and had to take it seriously, many data sets about the earth and its uses existed. But changes in temperature outside of seasons not included because not relevant to anything.

The computer cannot put numbers into a new category that emerged, or name that category.

WE, you and I - cannot see an object, say a coffee cup on a table, without attributing the cup the table, the room and beyond to being somehow in the whole universe. The attribution is always there, often not conscious. Try it. No computer can do this. A computer is a large army of well organized zeros and ones.

Imagine a chessboard. The pattern of the 8x8 board is some kind of material, paint, ink, ivory inlay, solidly attached to the board. But the pattern cannot be derived from the properties of the board even though it could not exist without those properties.

Plato

Descartes

Commercial activity and political power.

Big data can find very weak correlations in a large data set, but cannot deal with unique individuals.

The internet.

The great hope,

All connected simultaneously, the only message that gets through is contemporary. What Trump did to France and what he did on the golf course are equalized, not only that but what Tom Friedman says and what a marginal angry person in the provinces think gain equal access if only for a moment. Google selects stories that balance even if one is far from reality. A look at google news shows a balance between the Washington post and the much more marginalized Washington times, same with NBCCNN and fox.

Rise of Management

From tribal chiefs till now, a story of continuity, no substantial change just as from the horse to the car, each with four on the ground, the basic configuration has remained remarkably constant.

The impact of WW2 on management. The war accelerate the size and

standardization of manufactured products. But these developed needed managers and soldiers returning from war, often having missed out on college, were eager. This led to government funding of education and the standard model was that of general management. The result was that manufacturing refrigerators, tourist sites, government agencies were all treated as the same. ZZAnd we lost the sense of the spirit and sensuality of the human made thing. The quality of US manufacturing suffered and the Japanese, much closer to craft skills, dominated the 60's. The US recovery was thwarted by the shifting of US production to China, which quickly came to dominate quantity and quality.

The result is that the US has poorly developed skills for the advancement of gardenworld.

Separation of management from craft

Anticipated by Hoover. But what of machiavelli, Venice, the di Medicis?

Berle and Means, etc. The biz schools, the GI bill. The French and Chinese examples of morally driven bureaucracy based on excellence.

Bureaucracy..

Chapter 5. How did we get here?

Waking up is going to be necessary.

Long before the advent of gender-neutral terminology, the great English poet Alexander Pope averred that "The proper study of mankind is man." Yet in policy making today the human sciences are typically relegated to a secondary role, and the biophysical sciences have carried the day. The historical sciences in particular are routinely given little consideration in the making of contemporary decisions. The origins of today's problems are usually considered to lie no more than a few years in the past. Our approaches to education and our expectation of

continual technological innovation have made us averse to history... This aversion is inimical to sustainability. In the area of global changes in climate and other environmental factors we face challenges of a kind that previous people have confronted. One might expect, then, that in a rational, problem-solving society, archaeology and history would be at the forefront of public discussion. Of course they are not, and this fact condemns us to reinvent the wheel in the face of what maybe humanity's greatest environmental crisis.

Tainter *The Way the wind blows: historical archeology.*

Understanding the past is extremely supportive of an active imagination about possibilities. If we see how complex the thinking in the past was, we can more willingly undertake complex thinking now.

Two major parts of the past have struck me as are important - and ignored. The first is the rise of cattle culture in the early empires. The word *capital* comes from head, cap, a new head of cattle. Its culture comes right down to capitalism now, and our present can be best understood as variations on that theme.

The word *economy*, Greek, moved from meaning the managing the great cattle estates of ancient Greece into Christianity as the structure of God's plan for humanity, with the implication of invisible hand and the economy as a coherent structure. This history is almost unknown. Rome expanded its territory to feed its people, and overshot. We have expanded through technology to create wealth for a few and overshot. There may be no path to sanity now, only severe breakdown, because the cause is in the past and now we deal with consequences. My premise is that we can struggle to create Gardenworld, a world beautiful, sustaining, and modest. Being the best we can do, if we recognize it, we will do it better.

The reason to understand the past is because society went through many transitions, and we are going through one now. We need to learn from those in the past. The transitions, say from feudalism to craft and trade, was huge and had major effects on the lives of each person living at the time. Cultures changed, wars emerged, population increased, dominant language shifted. These are suggestive of things that might be happening to us now or soon and studying the transitions looks like a rewarding effort.

Obviously the past is dense with details and every new question forces a reexamination of history. My thought here are to remind us of how important it is to keep revisiting the past and looking for new insights about how to live, what a civilization can be, what is a good human life.

Before humans

So, how did we get here? Single cell organisms eat and reproduce and have to struggle with their environment. Just like us. We have been taught to see humans as different from animals (including primates) but this is extremely misleading and especially important when we think of how we will respond to climate and ecology issues. Who we are is much closer to animals than to computers. The continuity from single cell organism which take in and put out waste products and reproduce, is still who we are - - well, we have added a few touches of elegance to the process but the continuity is just obvious. Early humans do tattooing to look like animals because it is obvious that animals are adapted to the environment but we humans look awkward and out of place.⁹

Mammals developed a big heart and amazing capacities for nurturance and courage (from heart, *cour*, in French.) Of course they were evolving from earlier species all of whom had enough of what it takes to foster a next generation. The popularity of YouTube animal videos speaks to the depth of caring and playfulness other animals are capable of. Our strategy as humans to define ourselves by how we are different from animals was a serious mistake. That we are mammals who can care and play might be more important than that we can think with abstractions. Even for thinking, new studies keep showing how intelligent and thoughtful animals are. It is our human thinking, with symbols and systems, that tends to replace experienceable reality with fetishized concepts, oh, like "capital".

The animals show remarkable qualities of intelligence and feeling and remind us very deeply of ourselves, even our best selves. Animals save children, dogs save cats and cats save dogs and with a degree of urgency that touches us deeply - in our own humanity. Our mammalian ancestry is a deep inheritance that is the basis for our value systems, our care for offspring, for children, for children not even our own. Certainly if we are to build a new culture how we are similar to animals seems to be more important knowledge than how we are different.

It is obvious that humans live in houses¹⁰ copied from animals. The nesting of mice in comforting holes, and birds in nests above the predators, bears out of the rain in caves, and everyone else provides examples that we have learned from in making our

⁹ Otto Rank, *The Artist*

¹⁰ Handlin's book *The American Home*, awakens us to the task of creating homes.

own enclosed spaces with comfort inside and doors and windows to the outside. We have made some advances. We invented glass windows, brought the outhouse in house, but also gunpowder, the machine gun, the tank, the war planes, nuclear bombs, and surveillance. But maybe most important was fire, 100,000 years ago? At least cooking and keeping off predators. Worth a lot of thinking because of course our climate problem is because of the extension of those two uses.

As testimony to that range, an archaeological site in the Rift Valley dated twenty-three thousand years ago gives evidence of a diet spanning four food webs (water, woodland, grass land, and arid) encompassing at least large and small animals, families of birds, and 140 kinds of fruit, nuts, seeds, and pulses, not to mention plants for medicinal and craft purposes- baskets, weaving, traps, weirs. From Scott *Against the Grain*.

A word of caution. New discoveries about ancient civilizations keep happening. It just might turn out that the past was much more developed and sophisticated than we think. Instead of the line from hunter-gathers to the present we might be the backwater of lost times.

For Gardenworld thinking, more awareness of archeology is going to be essential.

Hunter Gatherers, nomads.

Why anyone not impelled by hunger, danger, or coercion would willingly give up hunting and foraging or pastoralism for full-time agriculture is hard to fathom. James C. Scott, *Against the grain*.

We moderns tend to look down on all those humans that lived in the past. We see them as simple minded, brutish, and mean. Yet there is no part of history more worth studying to understand our modern condition: how we deal with each other and the world around us. We might have to end up doing things they did well that society has forgotten.

Hunter-Gatherers take up 99% of all human existence, and they were busy, but also more relaxed and at home. Early humans came up with fire, language, clothes, and,

with language, song, stories, gods, and of all things complex kinship systems. - and accounting. And pottery. And stone edged knives. To early humans all things are alive and living their own stories. How can we see a blade of grass if it isn't doing something to be seen? All early humans were bathed in mythic thinking, they lived in their stories.

One example. The constellations of the zodiac. The "sign" is named for the constellation that carries the sun. That is, right now (April) it is Taurus and the sun, if you could see it, is in Taurus (if you drew a line from you through the sun to the distant stars that would be the constellation named Taurus, named for a constellation you can't see for a number of months). The ancients, before written texts, went a step further. As a top spins fast and wobbles slow, so the earth also spins (daily), and wobbles, with a period of about 28,000 years. 12 signs. The spring equinox is in a sign, but that sign moves to the next constellation about every 2200 plus years. Hence Moses the ram, Christ the fisherman (Pices) and next Aquarius¹¹. These fellows would make excellent companions.

We know that Neanderthals lived on big game which they killed with thrust spears. They were successful enough hunting them in the forests that they killed them all off. They had muscular stout bodies for that task - and a brain slightly larger than ours. Success then shifted to those who could move fast on the open plane. Smaller heads, longer legs.

Early humans made pots for storage of fluids and solid food. Do you think they had nothing to say to each other as they sat around making those pots? No observations of what is happening to uncles and aunts, our children and their children, and the need to not touch the fire and don't tease the dogs? The drama of meeting the tiger on the path to the hunt a story untold? The story of early humans, like our own, is still being discovered and in ten years will probably be different from now. The discovery of new artifacts and new speculations are evolving rapidly. .

Those pots led to good management and good management led to surpluses. The present has continuity with the past. We are talking about slow shifts in society, its technologies and habits. This is important to understand because we are living with such shifts in our own time, and likely to be hit with changes faster than at any time in human history as our social structure and environment are both being forced to rapid changes.

We are either being freed from slavery or captured into it. We don't know which it is. We tend to think that the lives of hunter gatherers were on the edge. But we confuse

¹¹ The amazing book, *Hamlet's Mill* by Giorgio De Santillana.

that with the few tribals left in the world who survive on the land avoided by “civilization” because it is too difficult. Early human seems to have lived well, as evidenced for example from bone structure found by archeologists.

The difference between early humans and later - say in the jump from nomads to settlements and “civilization”, is treated by contemporary society as huge. In some ways it is. It is a shift of security from knowing the land to knowing the complexity of a differentiated society. But in both societies people live with habit to avoid anxiety. The result is that most humans are deeply conservative and the changes in society take hundreds or thousands of years. And during each life time the drama of childhood, loves, work parenthood unfold in a deeply engrossing present. This is not lack of innovation, it is preferring being part of the group than being seen as different.

An issue for early humans was death, and the bodies were buried in the context of ceremonials, and these included flowers and other growing things, and took place at first in open fields but slowly in more attractive places that seemed like good home for the dead. The first plantings were for ritual and probably involved psychedelics. The key point is, the move toward agriculture was not based on need but simple serendipity. For example, early on the people traveled to the burial sites, but as population increased, the distance back to home territory increased and people simply stayed in the necropolis. In ancient Egypt with its desert and sun, the two most obvious things about the visible space was living-dying and the rising- setting of the sun. They suspected two were related: the place the souls went at death was the same place the sun went at night. The Catholic church, to defeat this, turned the symbolism of heaven under the earth into hell.

The emergence from early settlement to empire is more multi-phased opportunism than thought out. Strong leadership and hierarchy, attitudes toward animals and family, stronger warfare in defense of or to obtain territory, slavery, the awareness of “mine”, all emerged together. In the earliest phases, say before fire, the humans functioned the way chimpanzee groups functioned, showing all these aspects.

The combination of surpluses and accounting since early settlements, went along with a new sense of ownership, which starts as a primitive feeling of “I have mastery over.”. (Here we enter into one of the most important and contentious themes for Gardenworld.) What is ownership? The object exists in the field of force of a strong persons’ presence, maybe personality (or simply as a dog defends her bone). The result is “ownership” by a few and the obvious recognition that the things reflect power. Our word property comes from what is proper to a man of rank to show his status in society. Property is a social sign. “Are you dressed properly for the meeting?” I want you

to reflect on the importance of this thought and get past thinking of property as a god-given universal for all time and all societies. It is flexible, and how we handle that flexibility will be of crucial importance for our future.

Macaulay speaking in Parliament in 1841 spoke, “..in thinking that property is the creature of the law, and that the law which creates property can be defended only on this ground, that it is a law beneficial to mankind.

Hunter gatherers refused settlement for 100,000 years. The later resistance to machinery and alienation is just a continuation of that early powerful resistance to being ordered and controlled.. The benefits of settlements did not persuade the hunter-Gatherers. First compounds were not to keep marauders out but to keep slaves in as part of the extension of hierarchy. First slaves were captives in war and maybe humane to not kill them. Greek slaves were treated with some respect, even rights. Aristotle proposed that owners should have an agreement with slaves as to how each could earn freedom. People, cattle, women, children, slaves. All treated as stuff to control on the farm, so to speak. We need to empathize with all parties here. It was obvious that the task was to pull food for thriving out of the round. The ox, the slave the women, and self along with the children all had a part in that arduous process that came along with settlement. Remember that early humans admired animals and though they were better fitted to nature. Telling the ox what to do and telling one’s self what to do were experienced as a unified project. But that project meant harder work and a restricted diet and subordination. Not attractive. Only the loss of access to good land broke people’s spirit and got them to sign up.

Better historical thinking of the kind we need for Gardenworld has come from better understanding of the earliest humans, and also better understanding of other species, not just primates like chimps, bonobos, and gorillas, but all the way along the line to the far past. We are just becoming aware of the Australian aboriginal people¹² who were in complex settled communities 65,000 years ago, long before the European cave paintings and the Egyptian pyramids. Books like 1491¹³, describing the complexities of the Americas before Columbus, show a much more developed and complex world, with large populations and populated cities, and the management capacity to house large populations with fair equality, and to balance population with

¹² Bruce Pascoe Dark Emu

¹³ Mann, Charles 1491. See also his second book, 1493, what happened to the Americas after Columbus.

food supply in approximate sustainability.

Earliest humans had a rich inheritance from earlier primates. Maternal care, social grooming, tribal coherence, defense of territory, status hierarchies, complex mating patterns all evolve before the first humans. All lifeforms even the simplest, contain aspects that are easy to connect to human. Sexuality and eating and waste elimination for starts. We are taught that the period of hunter gatherers was a primitive time. But this might be an illusion.

As smart as us, educated in the details for surviving in the complex natural world, and full of story telling, laughter, tears and thoughtfulness. Levi Strauss proposed that the minds of amazon natives are as complex as modern minds. They have to know the plants, the animals, the poisons, the delicious, each other, stories, jokes, myths, social rules, and have a detailed mapped terrain. Modern children may not do as well in terms of complexity and interlinked pieces of knowledge. Compare the skills needed with Legos vs making toys with sticks and to float in nearby streams.

Anthropology has created better narratives of how our Stone Age “neolithic” family lived. They used to be portrayed as bent over, hulked, muscular and anything but elegant. But as we see from the frozen bodies of thousands of years ago, elegance was pronounced in delicate of clothing and decoration and as we see from remaining tribal people, posture is erect and graceful. A great book is Marshal Sahlins, Stone Age Economics, has fascinating views on the lifestyles and quality of life of the early hunter gatherers and nomads. Their diet varied with season and they ate many more kinds of fruits, nuts, turtles, birds, oysters, snails, frogs than we do. It is clear that these foragers balanced work and sociability and worked about half the hours moderns do.

This view is being somewhat modified by new anthropology which stresses how much hunter gathers are the remains of large civilizations. Lots to understand here.

[1]Understanding the sociability of these groups may be crucial to our understanding how people live as we move from Industrialization through an economic and environmental crisis to GardenWorld. This is a move from the social isolation of consumer society to the renewed sociability or cooperation for survival.

We tend to see the evolution toward more complex social organization, tribal chiefs and agriculture, as the result of necessity. The story is more complicated. Plantings were ceremonial, around the bodies of the dead, setting fixed places for remembrance and honoring among the daily lives of movement. Return to those fixed places starts what later became churches, and also places of story telling, awe, respect and - psychoactive plants. Our own dealing with the dead is trivial - and people are not remembered, and the dying know it.

Increasing population led to more conflict and the capturing of others led to slavery. The early compounds were not to keep marauders out but to keep slaves in. Remember that hunter gatherers resisted settlement for 100,000 years. Settlement means more work, poorer diets, less sociability, less equality, subordination to the will of others and lack of freedom of movement. This whole shift needs to be seen, not as opportunism, but as a very mixed story of opportunities taken without awareness of consequences. They were story tellers, and interpreters of nature. We have lost much that is there to be regained in GardenWorld as circumstances force us to cooperation and increased sociability.

Any look at history suggests that underneath the history you might be reading, there is a more detailed history, with many cross currents, and under that.. well, to read a minor history, like the history of tennis, or stamps, or caving is to see the world lit up in new ways. Reading big histories is helpful but so are small histories, histories of details. A History of coal ¹⁴highlights how well we did before coal. Or the helpful book, The American Home ¹⁵shows how preoccupying the making of home has been - and will be. Or Bruno Snell's The Discovery of the Mind. But even more focused histories. Such as a history of the interchange between English novelists and English economists in the 19th century¹⁶. The whole world of London comes alive and the intelligence exchanged among them is telling, maybe even shames us by comparison.

The big histories that we tend to know - Greece to Rome to Renaissance to industrialization, hide very interesting and detailed histories that get much closer to the texture of real life, which is where we will need to go in dealing with the changes necessary for climate and ecology problems. We will need to rethink housing, rethink agriculture, rethink security and health. What happened on the hunt and around the evening fire are serious clues for the future. Our disdain for ancestors is extra baggage we don't need. Their lives were filled with details, and so will our be.

The point here is that the past is worth reading about because given that our future is uncertain, we need to know the range of possibilities. Of course we will fail through a variety of incomplete understanding - but something will happen- , but studying the past civilizations gives clues, inspiration and cautions.

¹⁴ Malm, Andreas *Fossil Capital, the rise of steam power and the origins of Global Warming.*

¹⁵ Handlin, David, *The American Home,*

¹⁶ see Gallager, Catherine *The Body Economic
LIFE, DEATH, AND SENSATION IN
POLITICAL ECONOMY AND
THE VICTORIAN NOVEL*

The histories of these civilizations are important and increasingly readily available. I turn to a magazine like *Archeology* with a kind of anticipation quite unlike opening the newspaper or my twitter account. Instead of what happened to x as she stumbled in her political career, there are headlines about a new civilization just discovered. Which one contains more news about humanity?

The fuller story of ancient lives is emerging from research and field studies. William Goetzmann, *Money Changes Everything*, is especially strong on the 5000 year old Mesopotamian societies and their accounting systems around cattle and grain, taxes, loans, contracts. He shows that it all was more complicated than we have imagined. He shows that accounting could be done on the annual increase of the herd through breeding.

What gave the ancient Sumerians the idea of charging one another interest? Linguistic evidence provides a clue. In the Sumerian language, the word for interest, *mash*, was also the term for calves. In ancient Greek, the word for interest, *tokos*, also refers to the offspring of cattle. The Latin term *pecus*, or flock, is the root of our word “pecuniary.” The Egyptian word for interest, like the Sumerian word, is *ms*, and means “to give birth.” All these terms point to the derivation of interest rates from the natural multiplication of livestock. If you lend someone a herd of thirty cattle for one year, you expect to be repaid with more than thirty cattle. The herd multiplies—the herder’s wealth has a natural rate of increase equal to the rate of reproduction of the livestock. If cattle were the standard currency, then loans in all comparable commodities would be expected to “give birth” as well. The idea of interest seems to be a natural one for an agricultural or pastoral society, but not so for hunter-gatherers. Ancient Sumerian society—in particular, Uruk, sometimes referred to as “the city of sheepfolds”—would have been the perfect setting for the evolution of the practice of lending money at interest.

This is really important. Later I will discuss how the word *capital* comes from latin *cap* for head. A new head of cattle. Economy is rooted in farming, growing, feeding, sex, birth, reproduction. Our current view of economy is that it is abstract, computer code, not at all organic. This is part of our problem as a society, and we have mucked up the atmosphere and overpopulated the earth.

A key issue in the way we think about early humans is, we tend to think that innovation added to the life style. But in fact an innovation, such as storing grain, was not just an innovation waiting to happen. The old style had much to recommend it,

freshness for example, or keeping down rodents, representing a different kind of smartness.

Here are a few other books that enlighten early humanity. Those who hole on to the past are not stupid.

Charles C. Mann, *1491, New revelations of the Americas before Columbus*, showing that these were much more complex, and differently organized civilizations, with perhaps 85 million people living in the Americas before they were killed off by smallpox. The complexity of these societies opens up questions about our own sense of superiority and suggest some paths forward.

McInerney, Jeremy *The Cattle of the Sun_ Cows and Culture in the World of the Ancient Greeks*. The Greek and Roman lands were organized basically as Argentine style cattle ranches. It is important to see that the hunter gathers' shared kill became the sacrifice of a more sedentary people; thus preserving a tie to the old ways and feeding people. The size of this is hard to imagine. Athens at the time of Plato had a herd of 100,000 cattle for sacrifice - and just BTW feeding everyone.

Linklater, Andro, *Owning the Earth*. A detailed and helpful view of the central role of land in economy and especially in capitalism where borrowing against the increase in land values (mostly driven by population increase and speculation). Because of complex entailments it was not possible to borrow against the land, in the US until a clear (for the first time) title sold in the Homestead movement.

James C. Scott *Against the Grain*. The struggle of nomads and gathers to maintain independence against the rise of agriculture. The quality of life was good but agriculture narrowed the human condition.. The purpose of the early compounds was not to keep other tribes out but to keep slaves in.

Empires were immense, armies of half a million, millions of acres under cultivation of grains to feed those armies, and a priest class to create a sense of place, purpose and meaning. The cultural process has led to a world more differentiated, with many small spaces within which many of us can live with some security and independence of mind. Gardenworld should continue that evolution.

One place where there is some continuity of the present with the deep past is in the distribution of the hunt and its continuation in the pleasure of the feast or the family

meal. The hunting party brought the kill to the band and it was cooked and distributed. Later, when groups became larger the spirit of the hunt was continued in the near universal practice of sacrifice. Athens at the time of Plato had a herd of 100,000 cattle. Part of the peculiar psychology of this is we have no word for single member of the bovine species. 'Cow' tends to imply female, but is used colloquially for both. People from far away came to Athens, purchased one and offered it as a sacrifice, as Odysseus did on the beaches where he landed with his crew, sacrificing a 100, and feeding everyone. Athens and much of ancient empires were cattle empires, building on the culture of herders.

A very important part of this is that the *nomos*, law or management, in economy meant in pre-classical Greece, "equal distribution". So the idea of the equal distribution of the sacrifice is contained in the idea of economy. A law for equal distribution would not be necessary if there was not a force toward un-equal distribution. So this tension between equality for fellow humans and inequality for elites, so much with us now, was present in earliest times. As has been said "in our families we are all communists."

The Greeks

The richness of culture and life in classical Greece shatters our imaginations about life there. Not only did they create the words, economy, philosophy, politics, psyche and techne but gave each of these rich meanings. The word *economy*, household management, meant what it says, the management of everything about the household (households then were large farms, there was no market yet. They can be compared to Texas or Argentine cattle ranches). Plato and Aristotle among others discuss what well managed meant. It was clear to them that if the estate was well managed, it would produce a surplus. The Greeks being inquisitive about the meanings of words asked, what is the purpose of the surplus? We should ask the same question. Their answer was to not spend it on things but to create leisure time for the study of philosophy and participation in politics, the conversation of the community. Greek life was organized around conversation. Enough so that political offices were filled by lottery among all adult citizen males. This meant two things: citizens were developed enough to take on the responsibility, and the responsibility was kept reasonable for ordinary people to handle. Much to learn from here. Lottery might be the true measure of a democracy.

So the Greeks arrived at the estate as a community, and used the resulting surplus for philosophy and politics. The goal was to lead society to a fit life for humans. See book 1 of Aristotle's *Politics* and book 5 *Nicomachian Ethics*.

Plato discussed why there could be no philosopher king who could lead society in an ethical direction. First, the replacement of one generation by the next meant that no generation was fully aware of what had gone before, not was there clarity about the decisions about what the task was. Second, within a generation there was a great distribution of talents such that disagreements were going to happen because not all within the generation are socialized to the same understanding.

The Greek situation in Athens and surround is so rich in modern issues. Reading and mulling over what it was about is very helpful for understanding our own predicament. That is true of other civilizations as well but in Athens we have the example of very detailed records that are unique in giving us access to what was thought and done.

The empire s were all organization (with modern implications) of agricultural production to support armies which were used to gain new land for more agriculture - well, the cycle is obvious. Of course we have failed to see the cycle in our own time and let population drive profit for some with devastating wars for many. The gains in economy, the factory to consumer treadmill, were matched by loss of both community and access to nature.

An important thing for us to understand is the difference between monotheism and polytheism (and no gods at all). The Greek view of the gods, seeming alien to us, is actually quite common sense. Imagine you are in a conversation and suddenly there is a feeling of tension. The Greeks understood this as a movement of the god of strife into the space of the conversation. We moderns can feel this with a touch of imagination. Since it seems to be a natural inclination of many humans to imagine gods we need to be aware of this, and use it wisely. The Japanese for example believe that all things have a spirit. Think of it this way - else how could they affect us. That we do not attribute spirit to things leads us to not look at them but to imagine them as dead things. Early humans imagined that some human-like large force was responsible for lightening, floods, pregnancy. We moderns think this was imagination, and that the inquiry into the gods was really an inquiry into their own projections. But in doing this, pulling back the gods into themselves, they learned about themselves. We will need as much of that learning as possible.

Empires to feudalism

The failure of Hellenic civilization and the move toward Rome and the Roman Empire had many causes; but one of them was its unreadiness to control the processes of economic expansion. This repeated itself with Rome but on a larger scale, now Europe, not just the Greek peninsula. This is not affecting the US and China, in the midst of climate and ecological crises. The self that the Athenian admired was that as citizen in the polis; but this self had been formed by hardship and restraint: it could not survive financial prosperity and the ease and luxury that went with it. The Athens that Pericles praised in his famous Funeral Oration perished in the war brought on by his extravagant policies. Population and land poorly managed was the theme then - and maybe now. Now we have added two new elements: land - energy - transportation - cities. All poorly managed. We are using the wrong land with fragile transportation systems to feed a too large a population. Management problem we need to solve.

In the beginning it was well done. As Rome expanded it reached the point where army units stationed "at the frontier" were further away from Rome and annual return visits not possible. The local generals because familiar with the land and its people and slowly shifted sense of person to being a local leader, not a citizen of Rome. Increasing

taxes to pay for the armies mad it even smarter to leave Rome and walk into the forrest, so to speak.

The new local chiefs brought management skills and were able to organize the smaller local people. A mix of northern huns and southern romans, peasant farmers and soldiers, into workable productive units. [Interaction with Christianity, the monasteries].

Feudalism through Christianity to the modern.

I am going to treat the move from the monasteries and feudalism through to the modern period (to the medieval town to craft production and trade through colonialism and slavery to the modern industrial system, with a hint of the digital) as one major complex movement. Dividing this time frame (1100- 2020 into separate entities leaves in place things with lots of continuity, like elites. If we focus on technology we see discontinuities. If we focus on elites we see continuity. Being unaware of the role of elites and their importance is still powerful. We focus on the iPhone, not Tim Cook, on the Amazon Prime arrivals, not Jeff Bezos.

The path from the austere material life of agriculture to the richer life of craft and trade is the place where much of the modern world arrived. Craft, originally leather and wood and metal tools and utensils, becomes more artsy and refined, clothes become statements as castles became country estates , culinary skills required new precision farming. *Property* emerged as a new lust. This transition, from a relatively inward world to an extremely outward looking world, based in large part on sailing, is an extremely complex and interesting transition. Everything is involved: daily life, arts, religion, state organization, We tend to see it a a shift from the monastery to the town and factory to the port. But a major piece of continuity was that the model of the monastery economy and its aesthetics became the model for the housing and estates of the rich (the “nobility”). The monasteries, developed crafts and roles, efficiency and stability, complexity, good diet, shared with all the members, , unlike the castles of the dukes and lords. The rich gave up castles and opted for legal but not physically walled estates open to the fields and light and air.

As the Romans retreated from their towns, which had been used mostly for tax collecting, they abandoned tools buildings and land. As life grew grimmer in the feudal estates, some left and went to these towns where they found ready made tools and

work spaces, and set up shop, no longer making items from wood, leather and metal for the local feudal estates, but for sale. This is a long slow process of market creation. Remember this was a time when land could be inherited but not sold, where rank (property as a sign of rank) was inherited and not for sale (alienated). Habits and expectations changed very slowly.

The most important transitions are slow moving. Feudal and Monastery crafts moved out to villages, land became "owned" by the powerful, trade, first between villages, then to towns and then through sailing to new levels of world trade, mostly from land owned by the rich, farmed by the poor, with craftwork that was luxury goods (silk, spice, gold,) for the rich. Peasant life was little affected. The modern world of refrigerators, plumbing, cars, machine woven fabrics, clocks, owned by at least half of the population (in the northern half) did not arrive for a long time.

This whole time period, from empire to the modern, is critical to understand for Gardenworld because it is the source of much of current institutions and attitudes. These are coming apart now with climate disruptions and ecological destruction, over population, and loss of belief, loss of hope, loss of faith. The new, as people seek others to cope with, will probably contain aspects of the past (sociability, community, art) that have been forgotten. We need to know how these aspects of a good life were organized, problems encountered, solutions proposed.

The Renaissance and the Reformation are treated in most histories as big deals. But in fact the Renaissance was a period of expanding markets around craft and chips. It was also a time of war, mercenaries, using increasing cash reserves and bank, and authoritarian rule. It was not a period of new social ideas¹⁷. The arts of the period reflect the idea that Science is a phase in the history of Art. Artists turned to the details of dye making, bronze casting, architecture and perspective. These were all extensions of the market and the world of material invention into a dynamic economy.

¹⁸The new thought was about geometry and the separation of mind from life. Stephen Toulmin¹⁹ has written an extraordinary book about this. He says that people look on the Renaissance as such a great time, but he says it was a response to a series of crises, the thirty years war, bad climate, high unemployment and the assassination of kings.. The Renaissance turned to careful thinking that was non-controversial and leading thinkers such as Descartes led the way in avoiding the human aspects of belief: religion, love, arts. Toulmin reflects on the previous generation of thinkers such as Shakespeare, Erasmus and Rabelais, and their complexity of thought about humans. He says, and it is still true, we should return to that broader agenda.

The climate of belief - what kind of world we live in - is crucial and that the banks play the role the church played in representing that belief system. I was once walking with my son in Venice and it struck me that the beautiful art, music, architecture, as just the seductions of the church. Later that evening it hit me that, while sure all that magnificent art was basically advertising for the church, the underlying belief system with its focus birth, marriage, death, and solace was a much fuller view of the human life cycle than what is provided by following advertising now. This helped convince me that GardenWorld needs a well developed sense of the human life cycle and how humans fit and are supported at every stage of their life and death.

Economic writing, not yet called that (1600's), was genuinely concerned with the health of society, even though the understanding of what a society was was limited to then existing concepts.. Adam Smith's writings are terrific in the details of concern for everyone. But in pamphlets, and then in universities, (mid 1700's), the interest shifted from broad public appeal to writing for each other - among the London elite or large landowners (think of Downton Abby built originally on slave profits). These new writers following conventional trends in ideas about knowledge (hence influenced by Newton), worked to model the economy as a system separate from society following

¹⁷ See Cassirer, Ernst *The Individual and the Cosmos in Renaissance Philosophy*.

¹⁸ see Antal, Frederick *Florentine Painting and its Social Background*.

¹⁹ see Toulmin, Stephen *Cosmopolos*.

universal laws that could not change - a good conservative assumption. Remember that it was easy to imagine the economy as separate because so few people participated in markets and then only for commodities - grain primarily. - and the key basis for power - land ownership - was relatively narrowly held and invisible as a force for organizing wealth. A fact that is still probably true and needing to be a major topic of discussion as land use changes. Society will struggle with finding ways to reclaim the good agricultural land that has been turned into suburbs and vineyards.

Important to be aware that land, until into the 19th century, was not for sale, because clear title did not exist. All land was "encumbered" with side contracts and covenants that limited its use, and its inheritability. Social rank derived from land. That land could be inherited but not sold meant that it remained in the family and prevented those economically successful in trade or craft to buy into the upper class.

The alignment of economic thinking with Newtonian perspective (Newton became Master of the British Mint) was fateful for economics and thus society as writers on economy strove to be scientific - for career and prestige reasons. Money and wealth, not quality of life for all, was the focus - then and still). The Monarch often took the side of the peasants against the seizing of the commons mobilized by the nobles (the richer land owners) as the nobles were forming into parliaments against the king. The king had the role of thinking about the whole whereas the nobles saw the king as competition for the land and its production.

The actual intellectual life of the society in early industrial England was also very complex, and the interplay between literature and economy was intense. The interaction with printing and the spread of words on paper is important as the basis, but the basis for what? Important to see that a whole social structure moved in to a complex relationship with printing. It is hard for us to imagine how great empires could have been managed without print. Print allowed the writer to be read without having to listen to the response. The balance between spoken and written will evolve with Gardenworld.

We moderns need to increase our appreciation of ancient lives. Issues such as the nature of freedom: is it "freedom" for money to do what its owners want, or is it freedom from oppression through confiscation, penury, or preference for spiritual over body or pleasure over renunciation. These discussions moved among leading novelists and writers on economics in a mixture we no longer have, of conversations about ideas and sociability. How many faculty people do you know who host conversations with friends at home? These are issues GardenWorld will have to deal with. The effort will have to take into account the impact of big data on removing governance even further

from people as modeling of the public by experts replaces the interest of people having serious conversations.

Early economy back to Mesopotamia, Egypt, Greece and Rome, was based on cattle and grain and thus on land and households. I want to stress this and its implications for how we handle the world now. The focus of these early societies is more basic, closer to, food and family, than we are. Yet if you look around at the system we are in, it is formed by the same core issues. Food, sex and place, but until the 19th century with more differentiated, and colorful social roles than we have. I suggest that dress and place of living will undergo some fascinating changes in the next few decades.

The social history is hinted at by Huetzinga's marvelous *Autumn of the Middle Ages* and the politics analyzed by Barrington Moore. In his *Social Origins of Dictatorship and Democracy*. The great cultural historian, an isolated figure with a great mind, Giambattista Vico, is hard to read but worth the effort. The deep political thinking and its shallow variations is analyzed in helpful detail by the many Volumes by Eric Voegelin. I really recommend a few years of dipping into these books.

Descartes throwing out the past and wanting to start fresh shows the problem of this approach. If you throw out the past and try to think new, what you come up with is a weak set of principles from the present and nothing else.

A different slice through this time is in the work of Sennet²⁰. He has worked hard to reintegrate hand eye mind heart in a deeper appreciation of craftsmanship.

Here is a good place to discuss the theories of Arrighi on the progress of economy, taking us to a difficult place because after many steps, no obvious next step has emerged.. This is a slightly simplified picture. Reading the details in his book are helpful. The fascinating story goes like this.

In the 13-1400's craft work created markets in places around Genoa, Florence, Sienna in Italy. The success led to an increase on production and the beginning of a factory system, At the same time trade with other parts of the world (remember Columbus) was increasing and profits increased. The local Italian town bankers wanted to find new investments for this money (note the investment idea is creeping in). They built factories in smaller towns to the north but there was not enough purchasing power there, so these investments failed. At this time Holland was increasing its fleet and voyages were paying off, so the Italian bankers "discovered" Amsterdam and invested in ship building. This worked until the fleet was saturated with new boats and voyages, and the profit fell as competition increased. The Dutch bankers, looking for a

²⁰ Sennett, Richard see among others of his *The Craftsman*.

place to invest “discovered” industrializing England and invested heavily in London with Dutch Profits. This produced good results and then excess profits and new industrializing slowed down. The London bankers went looking for new investments and saw the rise of population and output from the North American colonies, started vigorous investment with London profits, and this continued until ww1 when England went broke with military costs (and many people lost their lives to the widespread violence of the war) The investment in the US paid off well, and the American bankers, looking for places to put profits from US industrialization (driven in large part by ww1 and later ww 2) slowly came to china.

A good new place to invest. But note, the next investment must be larger than the previous for this process to self-finance. After China, what? There is no bigger country, only bigger regions, and maybe not even a region is strong enough, just the whole world. Arrighi ²¹is suggesting that this is the dynamic at play. The implications for how to move toward GardenWorld? Obvious at some point the process fails to renew itself. Unless - long shot important for GardenWorld - , production opportunities shift from material stuff - limited - to wealth in ideas and relationships that self reinforce and do not need to return to increasing material production or extraction of wealth from earth or people. Lots to discuss here for GardenWorld.

Linklater, Andro. *Owning the Earth* Just a few themes from this transition.

The internal unliveability of empires hastened their breakup. With increasing population the chief had to spread authority to a ruling circle, and with time they needed to add bureaucracy, and with that armies which meant generals and estate managers who had a systems view . What is going on here is an expansion of the circle of those with power and understanding. That understanding was precious to those who had it and the beginnings of the emancipation of individuality is under way. Increased individualism is an outcome of increasing population. The slow march of individuality²² against the powers of the state. This is still the dynamic as climate breakdown breaks up economism and new authoritarian measures loom to resize control in desperate times after the failure of markets to meet the obvious. Gardenworld hopes for a more compassionate and participatory outcome.

Mostly ignored by historians of economics, and hence unknown are two books.²³ It

²¹ See Arrighi, *The Long 20th Century* and Adam Smith In Beijing

²² See Willima, Raymond, *The Long Revolution*.

²³ Lesham, Dotan *Neoliberalism from Jesus to Foucault*. and

Agamben, R Lorenzo *The Kingdom and the Glory_ For a Theological Genealogy of Economy and Govern*

is an extraordinary history with two main points. First is that Aristotle and Plato, using the word economy from which our current usage is a direct descendent, recognized that a well managed estate produces a surplus. The Greeks, being a conceptually oriented as they were, made a problem with this. What was the purpose of the surplus? These Greeks concluded that the proper use of the surplus was to create leisure for the study of politics and philosophy. This is important because it shows the use of the surplus was different from our own more consumer oriented. Both men said that spending surplus on extra things was a waste.

The second point is more complex. The language of surplus was absorbed into the early Christian community and the community was treated as the estate of God which required proper management, especially in the monasteries. The idea of the proper use of surplus was transformed into creating the time for meditation towards God. By the third century it was recognized that God was infinite and the human population was increasing and so it was necessary to grow the surplus in the reach of more people toward an infinite god and the theory of growth emerged (st. Jerome).

Historians have ignored the use of the word economy..

With the breakdown of Christianity the idea of growth and the economy of the community remained but the Christian framework of the goal of knowledge of God, equivalent to the Greek search for philosophy, was lost. So we ended up with an economy that was conceived of as a system (the estate) with an ethical drive towards growth but lacking any purpose. The Renaissance idea of the individual moves into that space.(increased riches and wealth. Adam Smith was very supportive of frivolous spending by the rich to drive craft incomes)

From human's obvious survival on the land, its plants and animals, to the present is seen as a series of steps, but it really is quite simple (though with lots of details). We still live off of the animals and plants harvested, gathered, from the land. It is crucial to my perspective that the distance from the deep past to the present is not so complex. The ate meat that was marinated, salted, cooked, seasoned. No need to believe they weren't curious about the impact on meat of various grasses (the word is herbs). Since we know that Hunter Gatherers did well on few hours of work, they had time for feed, which was boiled, grilled, steamed, pounded, seasoned. Time for food preparation was available and most likely used and eaten along with.

Fire

Song

Dance

Stories

The night sky.

We might add fermented drink and psychedelics. This story of the path from eating around the campfire to eating around the kitchen table or TV is not a long one. Continuity is recognizable. To be a species we have to eat and reproduce. Our institutions are built around the body. This will be true in the future, but we should keep eating and reproduction further to the front of our culture building for Gardenworld, and violence and defense further back.

The HG period, often called the neolithic neo+ stone tools lasted from something like 50,000 years bc to 5000 bc. What emerged from their success was a capability of breeding surplus cattle and grain, and feeding more people, leading to territorial disputes managed by increased warfare. As I keep saying, the past tells u a great deal about the present. What emerged from the shift, mostly driven by population, was large scale social organization of armies and farmers in walled empires. This phase lasted until, slowly, very slowly the horse and cannon culture could ride around the walls empires, and the siege was created as a standoff zone between the inside and the outside.

When we consider how important it is to have a human resources department with computers and intent, the ability to image these empires took a degree of complexity management was beyond what we have. The great empires gave support to increased population, but also to the high cultures of literature, graphics, architecture and the great religions. In important ways we are the left over from that period. Take for example the great Mexican civilization that built Teotihuacan or the fascinating stone city of Petra. The archeologists are understanding that these cities, hubs of empires, contemporary were built on understanding of sustainability, controlling crops and population, and living with a high level of social and economic equality as seen from the common size of houses throughout the area of the cities.

Imagine being a child and playing daily in Teotihuacan outside Mexico City. . This avenue was, among other things, a large market such as were built around the great churches in Europe. Colorful, musical, a feast for the eyes as well as food.



Imagine coffee and a conversation among friends in such an atmosphere of sophistication. What is civilization? I find these ancient places stimulate my thinking and concerns for our species.

Early humans decorated the body. The feeling was that humans looked out of place in comparison to animals. The tattooing²⁴ and painting of the body, say for dance or war, were to correct this impression. Decoration continued into feudalism and the middle ages. It still is a preoccupation of moderns. And probably will be.

²⁴ see Rank, Otto, *Art and Artist* for a wonderfully rich history.



Another such place is Petra, in Jordan, a cross roads of commercial travelers in the first century AD.

Empire to feudalism

This transition is important because it was the breakdown of a large society - Roman Empire - into smaller ones, the feudal estates. In many important ways what we are going through now, the shift of power from the states to the corporations -is repeating that process. The word *feudal* comes through the German word meaning cattle, showing again the origin of human society in the raising and distribution of cattle. It is engaging to look at modern society for signs of continuity with that past. Where I am in Sonoma County we are surrounded by pastures filled with cattle and the local grocery stores sell the meat and people drive to those stores to buy it and take it home. Continuity - and modification to the ancient system - are easy to see.

Lets start early The great empires seemed to be stalling about 500 bc. Strong religion leaders emerged surfing on the waves of despair that empire decay was causing.

Confucius emerged during the warring states period, Jesus in the oppression of the Roman empire. Buddha in the shift of Indian religions (later called Hindu) toward corrupt priests and concentration of wealth, Mohammed, in the oppressed of the south eastern Roman Empire, in the desert where geography and terrain had isolated the tribes.

As Rome grew its wars increased and it needed more land to feed those armies. This of course stirred up more resistance to the empire. Generals of the army were posed at some distance from Rome to manage a local part of the military establishment. But as the distances increased the posting were far enough away from Rome that periodic returns to home base became impractical. The generals, in control of their own territory, felt themselves increasingly free from Rome and because (long detailed process) local land managers, giving title to land in exchange for service in the local military. What then was huge - Rome - became an ensemble of small local estates with little interconnection. Land was primary. Local relationships all important. Many interesting words come from this period. Troth - as in I give you my troth (faith, pledge of allegiance) became truth and moved from relationships of faith to more the truths in the world of objects.

This Greek model moved through five centuries to the early Christian emergence, and underwent some subtle changes. The estate of the Greeks became the dominion given by god to mankind in order to provide the conditions for mankind's evolution toward a godly life. As the population was growing, the pressure on the monasteries was increasing, and it was increasingly hard to reach the infinite God. The conclusion was that the surplus had to grow into an expansive community defined as a subset of the whole society, that subset the economy of god, managing gods household, surplus was necessary, and growth was necessary.

The parallel with the Greeks is obvious. But then this structure ran into the reformation (and all the forces that led to that). The long period of the feudal - middle ages was filled with lives. People did not wish to be elsewhere, just for a better life within the constraints of the catholic/ farming culture. It is important to see how complex that life was becoming, with festivals, wars, and religion - and arts. Early Feudalism is often assimilated to the idea of the dark ages. But as Bell said, If this is the dark ages, whence cometh this light?

The whole period was filled with pageantry, flowers, banners, fairs, games, customs. A wonderful book is Johan Huizinga's *The Autumn of the Middle Ages*²⁵ describing these

²⁵ There is an earlier translation of this book, *The Waning of the Middle Ages*, not nearly as good.

aspects in sensuous detail. If we assume that life past global warming will be different, we need models of what the range of differences might be - somewhere between science fiction and historical pasts. Lots to think about, and the period from the breakup of Rome to the treaty of Westphalia, which established the nation states and new loyalties, is filled with interesting issues we can learn from. Certainly the nature of sociability and the place of the arts (in clothing, food, fairs, banquets) is not just interesting but fun and a bit scary to think through..

Scary because human awareness of suffering was more exposed. Today people cry silently and in private - not so in the middle ages where lament was common and public.

Now he is decaying pitiful and weak
Old covetous and libelous
I see only fools, men and women both, the end is truly near,
Everything is going bad.
- Eustache Deschampes (about 1390)

In the confrontation of the reformation (A reaction to the over-reaching church which took too much from the local church treasuries and developed amazingly complex hierarchies) much of the colorful life was given up for the clash of bureaucracies: religious, trade, taxation. Society was becoming stripped of its human qualities.

The churchly purpose was absorbed into a commercializing society, but two things remained: the idea of the economic community different from society. This allowed later thinkers to feel justified in dealing with the economy and its well being while ignoring the well being of society. The idea of the surplus also remained and was not treated as the instrument of investment as a narrowed purpose of the economy. The idea of growth also remained. So we had say by the 14th century an economy as a subset of society, and that it should produce a growing surplus. The power of this undercurrent of ideas kept the economy as a special space for privileged participation in growth and surplus. The religious origin of these ideas kept the ideas, in their slow evolution, basically as a belief system. With religion (the hidden hand some suggest) still at the core of economic thinking cannot be over emphasized. And provides problems and possibilities for rethinking how the economy works, a rethinking GardenWorld will encourage.

Economics has become the major language for governing. The opportunity is to

focus on the total productive activity of people in society on the land creating a civilization. The trend however was to favor analysis and concepts that supported the organization of society around elites. Economics manages the economy as though it were a part of society, not the whole. Our tendency to think of economy as a mix of technologies, networks and finance is fairly new. Early markets were village events, occurring say on Friday morning, selling locally produced food - vegetables grain and animals and a few utensils, all obviously in support of the lives of the local people. Each actual market was very unique, with its own regulations (can only sell on Friday and only here, signs can only be a certain size, remainder after sale day can not be sold to nearby towns for 3 days, and many more examples.) Early markets were in commodities, bushels of grain, head of cattle. This made quantification easy. Later things like furniture, jewels, were not commodities in the same sense yet price allowed them to be dealt with as quantities. This is a bit mysterious and worth discussion. Along the way we lost the humanistic organic basis for well-being that the villages, albeit poor by many - but not all - standards, represented.

There is a story - that hunter gatherers ran out of food and took up agriculture which formed empires which led to wars and slavery which led to feudalism, which population increase and cannons against stone walls, broke apart into city states. Fleeing people established free towns with crafts and increasing trade.

An alternate view is that the path, instead of a series of clear steps taken by most of humanity at the same time or following the same pattern, is more like an Escher - stairways intersecting at odd angles. At any moment in history the path to the present is still obscure and debatable (because the process if not over it is still ongoing through any present moment), and the path for wars looks like the Escher drawing - multiple paths with multiple destinations and multiple dead ends.

This suggests that instead of a fixed past and a fixed future, all is up for creativity and choice. The butterfly effect is always at play - that is, a tiny shift affects the choice we make now which has huge impacts on which future will be followed, and the path taken is really the sum of many paths across many options. Only in retrospect does it seem there was a clear path leading to our present.

Given this, the way to the hierarchical society we have was to take family structure as the model chosen for organizing people, treating non-genetically linked folk as if they are members of a hierarchical family rather than as members of a conversational community that wanted to avoid hierarchy. Why the family pattern was chosen over the community by the West is a question best explored by looking at those societies that did not make such a choice. In the anthropology / archeology literature there are some

examples, such as the Chinese village (“The people are in the forests and the emperor is far away”), and many now emerging in the research literature. Scott’s *Against the Grain* and Graeber’s Eurozine[2] article ²⁶point the way.

Breeding and nurturing has been and should be central to economy and economics. Economy is fundamentally organic, while economics, which is academic thunjing about the economy, has tended toward the mechanical, with physics as the aspirational paradigm more than biology or the humanities. The misplaced aspiration, to be included in science while really supporting wealth gathering, is killing us. Science implies universal law which implies all people must follow it all the time. No freedom, no humanity. Just cogs in the machine.

What makes the cornfield smile; beneath what star
Maecenas, it is meet to turn the sod
Or marry elm with vine; how tend the steer;
What pains for cattle-keeping, or what proof
Of patient trial serves for thrifty bees;-
Such are my themes. - Vergil *Georgics*

The transition from the classical period to the Christian and beyond, to the breakdown of feudalism, was a huge struggle and worth studying to understand better what we might be in for our own time. My guess is that a better society that might emerge will have many aspects like the old societies we have abandoned. In short, a return to community and personality and a turn away from consumerism and abstraction.

Passing through Christianity

There is a wonderfully perspective-shifting book by Dotan Leshem. *Neoliberalism from Jesus to Foucault* Economics moved from the Greeks through christianity to the modern era, and the the Christian period had a major influence, certainly unknown to me, on what economics has become. This is much more important than we are normally

²⁶ <https://www.eurozine.com/change-course-human-history/>

because the influences are still operating, and might increase, as we try to implement GardenWorld. The interplay of language, religious feeling, religious institutions and the organization of the psyche of the community hints at what is at stake in a community, and thus what might unfold as our current society comes apart.

The idea is that for the Greeks estate management was essential to create, first the necessities of life, and beyond that a surplus, a surplus which could support the citizens' participation in the public sphere, the polis, , and to create time for the reading thinking and talking that was the philosophical background on who we are and how to live. In this way estate management, the greek used the word *oikonomia*, (literally estate management) was understood as both meeting necessities and creating the surplus to allow some people the leisure for politics and philosophy.

This is clearly an intent toward the use of surplus that is very different from ours, consumer oriented status seeking. That we have two possibilities for surplus breaks us out of the trap of thinking there is only one, and frees us to ask and debate : what can we now (with more experience, better technologies, longer lives) do with our surplus (if we still have any. Socrates said that the way to more surplus, and more leisure for philosophy, was less consumption.)

That perspective was absorbed into early Christianity and became the well managed world, a world given by god to humanity (Jesus being part of that gift, an instruction on how to live, makes the story more complex so you need to go read it.)

The management of the world and the monastery were two sides of the early church leaders use of *oikonomia*. Remember they were Greek speakers.

Moreover the purpose was to grow that capacity in order to reach an infinite god and carry out god's infinite plan.

In our time, we have dropped the church and the beliefs and are not growing for god's project, but for our own. But the Athenians and the Christians had a rudder to their project, a direction, and hence an intent. We seem to lack that. Can GardenWorld become that intent?

There is a whole literature and many university departments in this discussion. Hannah Arendt for example proposed five periods to economic life: Classical, imperial, christian, liberal and neoliberal. And now what?

God created a world where humans were free. The Greek world was more a world of constancy and mechanical structures. Understanding this Christian interlude is crucial because of the fingerprinted it leaves on current institutions. For example, the

idea that the economy is God's project for humanity and that the project had a coherent structure across the terms, God the father, the Holy Spirit and the son Jesus became the idea that the economy as a trinity was a coherent structure. Implicit was the idea that it was a monarchy and not a plurality. The three modern concepts of capital, labor, and land hold together as a single system.

the Chinese it seems never had such a coherent system in mind and saw what we call economy as an ensemble of systems that could interact but we're not necessarily coherent. There is probably great strength in the Chinese and other Asian approach. certainly the idea of elite capital as the guide Is reinforced by the Western Christian tradition and habits of thought with a single god and a single king. If garden world is to open up that's thinking it needs to consider these issues of the implicit bias of western thinking towards narrow ownership and narrow leader ship.

for the Christian perspective in the middle ages the economy was very integrating structure that lead from purpose to practice. The experimentation in garden world should probably be a continual interaction between The goal, the purpose, and experimentation, practice and reflection which means conversation among all the participants. What works? How are we doing?

Another important perspective on the contribution of the Middle Ages and the issues they struggled with is from the literary side. An excellent book is Ernst Curtius's European literature and the latin middle ages. This will reinforce the idea that each old culture is in fact livable and complex.

Christianity was certainly an all encompassing culture for Europe but it was fated. important for us now to learn the feelings of collapse.

from Augustine and the Problem of Power:

The Augustinian Prognostic Charles Cochrane

<https://voegelinview.com/augustine-and-the-problem-of-power-the-augustinian-prognostic/>

Surplus

The use of surplus, both in Greece (eco-nomos and in christianity, gods household) well-managed will lead to a surplus whose end was in Greece time for philosophy and politics, or later, in the monasteries, contemplation and god seeking.

This means we can talk about the purpose of an economy. Also the management that

in fact led to surplus was wise management of the land and its critters. It is an alternative to a brutal focus on growth at any cost. Growth is of value to those who see their asset value increase without having to do anything, and to the brokers who make deals for people who are looking for ways of taking advantage of growth. There is some benefit to “consumers” but at the cost of needing full time work to buy what is created in much less than the full work week. What is meant by growth is often a decrease in what remains. Cutting forests, extracting minerals, forcing people to work 60 or 40 hours per week for meager results. The political struggle has always been , who get the benefits of the surplus, if there really is any. The wealthy and powerful, where wealth more or less equals power (The children of the wealthy are often the most vigorous in using that power but many of the children of the wealthy show lack of initiative and lack of understanding what their wealth is.

We certainly want to manage our land and climates - and people - well, and that should produce a surplus. Though with climate and ecological damage so extreme, it might be a major task just to survive, and then to what to do with it? If we can feed and home ourselves - estate management - that might be the goal until some kind of stability has been achieved. This is not going to be easy. If we get to survivability with some serious success, then do we chose less work, or use more work to create a larger surplus? These are questions of the nature of humans, what good society is, and how to “manage” wealth and politics.

It will be important to keep he discussion of the purpose of surplus because the wealthy and powerful, the new leaders, will ty to hide the fact of surplus and hide the uses they make if it. Surplus, as the Greeks and monasteries made obvious, is the opportunity to create larger minded people, but also to become property, the “proper sign of rank” in a rank society.

Capitalism is the ownership of the money by a few who use the state to increase their capital while extracting wealth from others and the environment. Capital begins with production, and the surplus of breeding - one new head (cap) of cattle. This is already present in classical Greece. Capitalism is a way of making decisions in society by creating a hierarchy somewhat independent of the state. But it is a blunt instrument, capable of deciding what makes more capital, not what makes better lives, since things that capital can create and then bought, while important, do not add up to a life, and keep the economy working for the few. Thinking through what a society does with surplus is going to be a major discussion - or should be - if we are to redirect Gardenworld toward a fuller life rather than repairing the money generating machine that right now is killing us.

The modern

I have discussed this in the chapter 2, "where are we". But a bit more about the modern is going to be helpful. God is dead. Erich Fromm asked if man was dead. Our sensitivity to who we are is in decline. The cultural is thinning, rubbed away by time and too few new work at renewal - amplified by poor distribution into the public, for a lot of reasons. Keynes once wrote, "It take 99% of all human effort to keep things from getting worse. " But we have not been putting in that effort. The result: decline.

The "modern" has been a period of cultural hope and great confusion. Embraced by the professionals and scaring the rest "a monkey could do that." The general public could not feel at home with Picasso, Joyce, Einstein and their fear was a harbinger of the problems with Trump. . The modern wanted to avoid the past because it saw the past as full of errors we could avoid. But it avoided too much, like the wisdom of thinkers about human nature, political conflict, and the depth of experience and philosophical awareness needed to understand belief. Psychoanalysis, which began as a serious look into the depth of the human psyche,

"I could not find the bottom, so deep is the human soul" wrote Heraclitus in ancient Greece.

..... as ceased to play the central role it had in the first half of the 1900's, , replaced by the urgency of time which can't tolerate lying on a couch for an hour and looking at one's own thoughts. Modern is mostly characterized by looking at beings of all kinds in isolation from other things. Picasso's paintings on the one side and fragmentation in science as it became re central to the economy and careers. Economics led the way in fragmentation, trying to exclude politics and social thought because these were seen as threats to wealth and concentration. The corporation tried as hard as it can to isolate itself into a controllable environment. Consumerism treats people as isolated from family and friends

because you are supposed to meet your needs by buying things. Watch friends trying to downsize and how attached they are to their collection of things as sources of comfort. Teddy bear like we cling to our fence, our car.

We are having to live through the modern to get to a healthier Gardenworld.

You can see the slow shift to the “modern” as another major line of historical development. Human started organizing themselves (inherited from earlier primates) into groups around the twin activities of food and sex - reproduction and sustainability. But we couldn't do that without some limited cultures of the kinds we can see among primates. But we humans went on to a more elaborate culture. Since the human brain is more attached to itself than earlier species are to the world, elaborated structures of habit and desire - culture - became increasingly the place where we live, increasingly more in culture than in our bodies.

The danger is, as we can now see, living in our culture away from nature has led us to make serious mistakes about the survivability in this elaborated world of the more natural brain-nature world that was our more immediate world in the deep past, a world we have designed ourselves out of.

Much of “modern” is really about this. I can't do justice to the depth of the modern but I can point to aspects for you to follow up on and that will be important for Gardenworld or any post crisis human habitat..

As we moved away from the god world we entered more into what had been called, *secular*, which comes from ideas around a single human life, not the life of a community or species - basically the collapse of broad philosophical time and space to a much more confined here and now. The time and space of computer games is here and now. Players do not expect that their actions will create changes in the space broader than what is in the screen generated world. The despairing parents are struggling with how hard it is to get young people to have expectations much broader than the game world.

Charting human lives for vitality in Gardenworld will not be easy.

Chapter 6 What can happen?

Civilizations do not form through Big Bang events. They emerge through cascading transformations and bifurcations of human activity in the web of life. Change takes time - usually. Obviously great volcanoes and asteroids cause immediate new conditions that the surface of the earth and life will respond to. The current climate episode is here now, already happening and accelerating consequences.

people seem to be anticipating the worst, so much so that they are passive. High probability scenarios are mostly bad, so we need to work for some low probability scenarios. Passivity may be better than hysteria, but humans are challengeable and most will respond to dire anticipations. The character of that response - caring or violent, is not yet clear.. Certainly Gardenworld is there, not likely but desired. Lots to do.

Through the empty branches the sky remains.
It is what you have.
Be earth now, and evensong.
Be the ground lying under that sky.
Be modest now, like a thing
ripened until it is real...

-Ranier Maria Rilke

The speed of emerging reactions to the promise and the reality of climate breakdown - closing off of transportation affecting at first primarily food and the abandonment of infrastructure (power plants, dams, communications centers) is unpredictable, but history suggests probably starting slow and then rapid increase as events cascade after a period of trying to hold on to the present ways.

The two most obvious paths forward - and they might both happen - is first, threats to food supply and reduced availability of energy will lead to a degree of panic amplified by migrations into favorable places from far less favorable places. This will make everyone anxious and looking for who and what to align with for food and security. This would be difficult to manage because there is no system wide management - and difficult to live through because the threats, first from lack of food

water and shelter - but then because other people, desperate for the same things, might not behave cooperatively.

And cooperation is the second and hoped for path. For cooperation to dominate in a chaotic situation some leadership is needed. It is unclear if current leadership would even attempt to manage, or if new leadership (say from retired military and corporate people who have some understanding of groups and organizations) would emerge. The population is untested.

The goal of cooperation would be Gardenworld but that might not be how people choose to cooperate. Immediate needs might lead to more technocratic militarized and harsh cooperative realities.

Here are a few unresolved issues worth your paying attention to.

The impact of complexity on individuals and smaller communities tends to undermine faith and belief. People carry themselves and speak differently in different situations. As the number of situations increases - and they will in the disruptive paths of any transition into climate breakdown - what will be the impact on each person's sense of life, and their sense of self? We might expect people to keep making choices that amount to conservative in order to avoid getting too disrupted in themselves.

What happens to generational links in a disruptive time? Do people of the same age hold together somewhat conspiratorially toward adults, or do younger people look more than they used to for adult leadership - and example.?

Do people turn heroic for their community or do they separate themselves from familiar relationships?

These issues also impinge on the larger questions.

There are many experiments with growing food locally in new settings and using new technologies. But they tend to not include places for people to live. Gardenworld thinking sees the need to grow food but following modern practice does not create those spaces as places for people to work and live. Integrating new use of land for food production with new ways for people to live in small villages is the current frontier. Also it might be that many of the current experiments are creating bad jobs - harsh on the body (over-specialized, long hours at the same task) and relatively mindless and isolating.

Along with not looking at how people will live in the new experiments, there is little talk of the stark facts that many places in the world, inner cities, deserts, jungles, where sustainable food and energy production locally is not plausible.

The Internet has undermined current forms of governance and organization leaving

us connected at a distance and more distant from this close to us - family, community. The result is we have no clear idea how we will try to organize ourselves.

Margaret Atwood's dystopian novels stretch our sense as to how difficult this call can be. The hope of Gardenworld is that people will be drawn to the idea that land and buildings should be re-purposed for meeting human needs for food shelter and quality of life. Because heating will be expensive or unavailable people will be drawn to turning larger houses into community projects. Large houses also tend to have more land that can be used for growing. Much of the rest of buildings can become sites for small gardens. Timing is important, not just because of seasons. Efforts should go into short term and long term projects simultaneously. We can't get to long term if we can't survive the short term.

Our sense of space will change. The complexity of space use - businesses, state, energy, communications, farms, storage, will surprise us for their complexity - and how quickly they are commandeered or abandoned.

Time also will change and things, like preparing for college or retirement, will be forgotten. But we are humans living in the life cycle. Gathering children and teaching them will become a major task. Providing health care will be rapidly rethought in difficult situations.

Sensitivity as to who has relevant skills will be at play. Does she, does he? Do I?

And we probably won't make it. But something will happen. How we cope in the bloodied white water of entropy will be important. I think if we stick close to two intents, we will at least have our dignity.

1. Realize that food and water will be crucial and we need to keep looking, from our back yard or equivalent to the region and planet, on how to feed people and grow people, nurture and civilization.

2. Care for those who are hurting, which is already very many people.

we might need to realize that it won't be us. We are too old, too set, too out of condition. Realize that we might go through times that really are the end of an empire with collapse that looks like the black plague which took out 50% of the population, or the smallpox which took out 90% of the native american population. Can you imagine? But this time leaves behind a trashed environment not easy to work with.

But the personal way has to be to do the best we can, technical and human. So be it, but making the effort is the way to personal health. Get through the stages of grief as fast as you can and participate best as you can. Which might mean helping techno-optimism develop, though I have

my doubts. The scale is too big. If you look at your own state of mind, the feelings, the intuitions, we are all poets now.

Forms of power

Capitalism is a way of assigning to one group of people (owners and managers of capital) the power of decision making for society. It is a structure running in parallel to the political regime.

In practice capitalism has evolved through corporations to create feudal estates that are hierarchical, status institutions that in fact make the major decisions, either through internal choices or through the use of capital to manage the political process to get the regulatory environment they want.

So at the best we have a democratic society of enlightened citizens amongst whom dwell corporations which are feudal structures that actually control society. Why does economics not make a big deal of this? Instead, economics seem mostly to help it along, providing the accounting to manage society for the benefit of capital (which started as the surplus of cattle breeding in ancient cultures and empires.)

Elites have always been in control but with the coming of the Reformation and the Renaissance and increase production of crafts and trade the elites took it to themselves to own and manage those urban centered trends for their own benefit.

We need to be clear that the French Revolution, the key event between the long path from feudalism to the modern, was about the failure of the economy to match the aspirations of society, and the problems it tried to resolve were not resolved, especially the problem of poverty and the poor. As wealth increased, its concentration increased. Land was given over to agribusiness and people were forced off the land. Factories emerged to provide some employment (a late form of slavery). Along with the factory system came increased development in finance, manufacturing, and trade and these added up to a division of society into basically a two caste society - capital (often called bourgeoisie, confusing everyone) and labor.

Geoff Mann's book *In The Long Run We Are All Dead*, links The French Revolution, thorough Robespierre to Hegel to Marx to the rise of industrial monopolies to Keynes to the present. In contrast most histories of economics use cherry picked moments that lead inexorably to the present as a success story, cheerleading all the way, and hence avoiding writing the more interesting histories of the seeds of alternatives that might be of use to us.

There is much more to say about the rise of cities, the powers of war, the nation state and Westphalia. technology... but you get the drift. What I most want to do is suggest that all these issues from the past help us understand the present, and help our imagination creating new alternatives. Central for me is Manuel Castell's solid book,

Aftermath, describing the destructive power of networks to have undermined society and increased entropy.

What ever happens most people will be involved in the production and distribution of Forms of power (too often ignored in economics) , planting, weaving, feeding cleaning up, sweeping the temple. This might include burying the dead and caring for the sick and wounded. Rough time generates tough roles.

The key split for the future is between a militaristic or a more cooperative approach to disorder as systems fail. It helps to clarify such issues by examine the logic of plausible scenarios for the future. Since my purpose is to advocate for Gardenworld, I am not putting a lot of effort into telling the sad stories if what I and could happen. Books such as Parenti's *Tropics of Chaos* tell the harsh stories and should be read.

Politics

Politics has been replaced by economics as the dominant mode of thought about society, but politics still rules even if ignored by people and communities. (Can't hardly use the word citizen.)

The academic world does not teach politics. People don't know the struggles we have been through to reach some form of democracy. People do not know the difference between democracy and a republic. Our political imagination has atrophied, as has our capacity for indignation. We can be negative but without much content.

Issues that intersect governance. Corporations? How do they fit? Bureaucracies? To what extent to the work for us and to what extent serve narrow interests?

To start, a vey different system was the Greek method of hosing leaders by lottery. (Seriously). From wikipedia:

The use of the word lot. Wiki

In [governance](#), sortition (also known as selection by lot, allotment, or demarchy) is the selection of political [officials](#) as a random sample from a larger pool of candidates,[1] a system intended to ensure that all competent and interested parties have an equal chance of holding public office. It also minimizes [factionalism](#), since there would be no point making promises to win over key constituencies if one was to be chosen by lot, while [elections](#), by contrast, foster it. [2] In ancient [Athenian democracy](#), sortition was the traditional and primary method for appointing political officials, and its use was regarded as a principal

characteristic of [democracy](#).^[3]

Several implications. The system they are to manage must not be too complicated. The need for the whole population to be educated is obvious is anyone might be chosen.

This is so different the mind boggles, but that is exactly what we need. The question is, what is the system of governance that fits a society that is concerned with the good of everyone? Not what we have now, which is the use of the state by a small minority against the rest of the people. We need to use the climate crisis as an opportunity to revisit the democracy project.

The dichotomy between capitalism and socialism is too rigid and misses the possibility of other ways to organize. If we look at medieval times, when people left the feudal estates for living in the towns abandoned by the roman, but basically catholic we see that freedom might be the result of playing different organization off against each other. Part of the problem of capitalism is that when it dominates it pulls all the wealth to itself and living cheaply becomes impossible. Socialism tends to be a single structure: a state and the management of nature. There is also no place to hide.

Gardenworld holds open the possibilities of decentralization with many places to hide, to be creative, to think.

Scenarios

All science is embedded in stories about what is important,. These narratives, while important, are not taught to students, neither their importance nor how to create better ones. Gardenworld is a narrative, not an equation. The way to think about narrative is to develop alternative narratives and play them against each other. Not easy. The stories we are told can be hard to evaluate. Take the issue of poverty. Sure half the world has moved out of poverty, but into what? Work for a corporation and live in sixty story hi-rises?? The picture could have been taken in many places in the “developing” world. This one I took in Malaysia.



Note the air conditioners in each apartment, and the parking building almost as large as the spaces for parking people.. What will happen with cutting carbon use? These building become uninhabitable.

“We have a worldwide business culture that knows how to create wealth but not how to distribute it.”

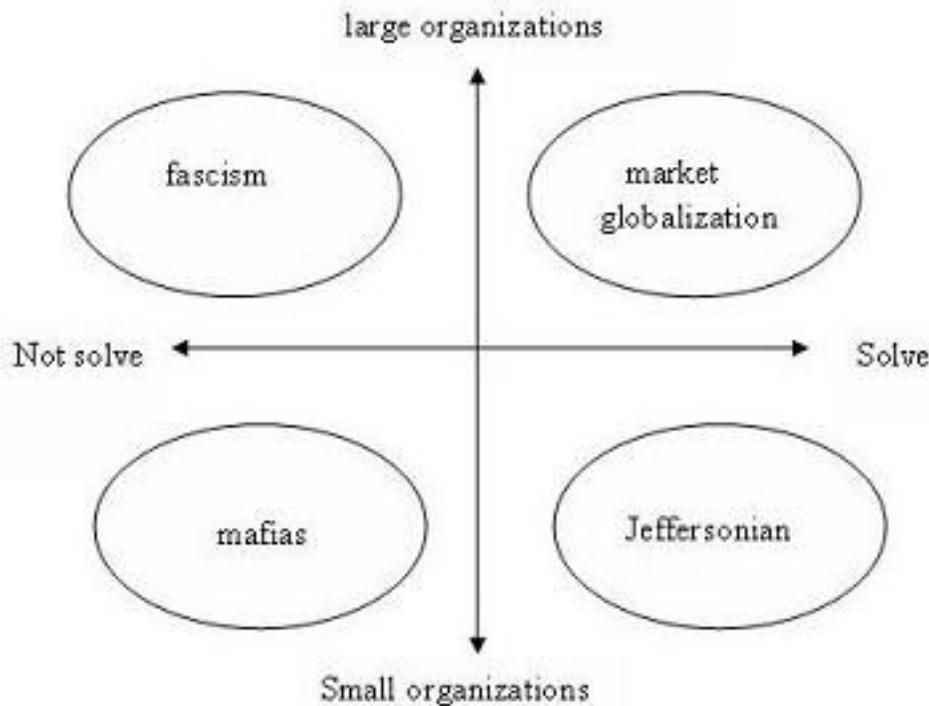
To support GardenWorld we need a believable and achievable vision divergent from the present momentum to which most people are still trying, out of necessity more than conviction, to stay aligned. An alternative would focus on qualities important to us. A solid alternative, vital, alive, aesthetic, humane, respecting the need for beliefs and meaning, with a desire for the quality of real lives.

To create a vision we need to be thinking about possibilities. Working some plausible scenarios helps and I find audiences of many kinds like them. Follow along with me

Let's start with a pair of the largest unknowns about the future:

- Will we solve the major problems? Environment, population, war, education, families, quality of life?
- Will we do this with large globalizing institutions, or with smaller, regional and local ones?

This generates four different outcomes for discussion. These scenarios can be summarized in a diagram:



First, in the upper right, is that we will solve the problems (or at least keep them managed) with large organizations. This is a kind of official future describing the way Europe, the United States and parts of Asia seem to be moving. This is market globalization or technocratic centralism.

Second, lower right, that we will solve the problems, but with smaller, local and regionally focused efforts. We can call this the Jeffersonian Democracy scenario.

In the upper left, trying large systems and failing, as happened in the early 20 th century, Germany, Russia, England (more gracefully), and now the US is dangerously close to, if we follow Jarred Diamond and Chalmers Johnson, tends toward fascism, the militarized failed large

state.

Trying with small local and regional effort and failing, which means scarce resources, leads to local mafias that try to make deals of security in exchange for participation and acknowledgment of new tough local power.

Failure on the right side push people and institutions toward the left side. This suggests the importance of staying on the right side by avoiding conflicts that lead to the left.

The major result from these is to notice that the managers and owners that are propelling us toward the Official Future also prefer the Jeffersonian for their personal lives. They want semi-rural homes, even if just for weekends and vacations, and they would like their children to live in a detached house surrounded by trees, and even “acreage”, with a school they can walk to and a dog that can roam with them. This suggests that polarizing between the Technocratic Future and more regional and local development of Jeffersonian Democracy is not smart. We need a policy of blending the two with mixed strategies, social policies that support some degree of globalization, but with a renewed focus on local and regional development. This would pull most people together and prevent the conflict that would also push us toward the left side of fascist or mafia “arrangements”, where the result will be to increase policing and isolation and to shift the emotional climate toward these negative outcomes.

The way to achieve this complex mixed strategy is to realize that regional and local development requires a more equitable distribution of resources, and the education at local levels to make sense with those resources. This approach, blending globalization and local developments, in order to bend rather than break, requires that we all learn to deal with complexity and compassion – capacities we are not good at.

The Chinese approach seems similar. Expert culture at the top setting large directions, grass roots efforts at the bottom to solve local problems, and the state finances local study of issues and also finances projects that weave local efforts into state set priorities.

GardenWorld is what I favor for this complex strategy, blending problem solving with the large and the small. It cuts to the core. It has high contrast with alternatives – the concrete, steel and dirt trashed misuse of land. The Japanese countryside gives us a hint at what a well-treated environment can look like. The Hanging Gardens of Babylon could even help integrate our friends in the Middle East, helping to revive this great tradition. Fredrick Law Olmsted in creating Central Park in Manhattan set an American model for city-rural integration that is design based and organic. The environment, through agriculture, is probably the key infrastructure for our population, much more important than energy. We are suggesting that strong agriculture mixed with new forms of rural landscape living, blending economics and aesthetics into GardenWorld is attractive, healthy believable and possible. It uses the technical but in the service of the humane and organic. It offers quality of life for rich and poor.

GardenWorld is the real contrast to the Buck Rogers sci-fi techno-dominant world that is our current official direction. GardenWorld allows the humanists, the religious, and the scientific to have a shared goal of a realizable better world. Without such a goal, we will see increased terrorism, where each new freedom fighter embraces a last and self-annihilating action in a social

field of utter despair. A person only becomes a suicide bomber when they feel that circumstances destroys them and their loved ones.

We are dealing with meanings, which the progressive professional technocratic class forgot to cultivate beyond a scientism that was serving masters they didn't care to recognize they worked for. There are great traditions of science, art, governance, and yes religious thought, and only by integrating them in a new and tolerant way can we avoid factionalism and what the founding fathers feared, "Interests." We are no longer viewing two potential futures, but comparing where we are now, the over-commodified and "unnatural" world, to a potential called GardenWorld. The GardenWorld alternative is worth a new look, with deeper appreciation for its necessity and benefits. People are ready, with the ugliness already around us, to move toward a realizable alternative, rather than just vaguely anticipated "progress". The wider understanding of income divergence and environmental stress has decidedly increased people's desire for new leadership for a new vision.

We need to bend toward GardenWorld rather than follow the current path aligning ourselves along the axis of finance, or the systems on which we all depend, economics, corporations, governments, health, and education. If we don't redesign the path we will break. We need to give the religiously inclined a way to participate in a better future rather than using their own religious beliefs as a way, out of deeply felt frustration, of saying "no". We need to provide the technically and scientifically inclined a real possibility that their creativity will build a better world. Besides, GardenWorld is a beautiful vision, and worth all our talent to work for.

"Working" is also becoming increasingly abstract, driven by the informational aspects of work and the drive for profit and cost-cutting. Even the road crew, agriculture workers, truck drivers, and all "operators" are increasingly network tied in isolated workspaces, and increasingly live within computer driven time demands. We needed a more attractive image and experience of work in society, both to meet our needs, and to create meaning. That is, we need to know more about what we are doing. A simple example: garbage trucks in many places used to have a crew of three, a driver and two loaders. They often switched roles. You could see them singing, telling jokes, measuring their styles of handling big cans against each other in a spirit of play. The jobs got redesigned. Now the trucks have one driver who picks up the cans with a machine forklift. The driver is alone in the cab for hours and without exercise. Was this job change designed by a reasonably thinking person? Or slave to the logic of efficiency? Progress?

Dreams, waking and sleeping, can help clarify the issues. A few years ago I was working with the local Smart Growth Coalition, and we were talking about how farmers took one of the local valleys and cut it up, across the stream and then each developed a personal style for their own land. The valley, instead of looking like a natural or flowing landscape, looked like a collage of pictures of very different farm images. The result was the "valley" could hardly be seen.

That night I had a dream that at the Louvre there was a discussion among the Board of Directors about increasing maintenance costs and the threat to the budget. One of the members suggested auctioning off the Mona Lisa to raise funds. One of the lawyers on the board suggested that it be cut up in pieces and each sold separately so more money could be raised (farmland

divided is worth more than farmland intact). This was done, and each successful buyer ran off with their piece to hire an artist to “improve” their piece so it would be the most famous of the fragments.

The point is that our surround is not just us and our private living space, an office, some frequented stores each an isolated Lego block of personal property, but we live in a culture that is a whole, which is a manmade fabric, and currently deteriorating. We have been a part of a whole, we remain inescapably embedded in a whole cultural and economic social context and we will be. Seeing this continuity across past present and future is the first step toward being able to reinvent and take responsibility for it, choosing our discontinuities rather than being victims of them.

The coming of the Internet and the virtualization of relationships and locations lets us gain new perspective on the human creation side of our current lived environment, and the possibility of rethinking it as easily as we rethink the Internet environment.

One’s whole life is hard to envisage fully, since it takes having lived one to get the full idea, but our society is designed around money which means around business which means around laws and institutions favorable to business and its owners and professional support staff of lawyers, accountants, doctors, This biases against the child, the mother, the artist, the old person.

It is important to say that a more benign less dramatic future may await. If we spent the next few hundred years correcting the errors of over expansion and exploitation, bringing back a balance among humans, societies, regions, we might create largely bland but locally fulfilling lives, fascinating for the more energetic and calmly pleasant for the less.

On the other side is it possible that there will be major winners in the adaptation race, or worse, no winners at all? There are many ways to generate instructive scenarios. The point is to enter into the discussion.

At the moment it seems that the most likely scenario is collapse through agricultural failures, migration wars, infrastructure failures and war. In this context local mafias are likely. It is always important to monitor emerging trends and to hold out for an optimistic possibility that still meets critical thinking.

Chapter 7. What should we do.

The goal of Gardenworld is to blend ecological restoration and technology without the dynamics of wealth concentration. Civilization and Nature blended for humans, making the environment and the crippled people whole again. This is hard work. with a better distribution of wealth and technology, with new forms of governance and smarter more hopeful philosophy.

We moderns of the upper say 10% of the population are not well equipped to adapt to this new culture. Farming we have almost never seen, gardens are small and conventional. Those with real skill at gardening, farming and coping with frequent water and electricity outages will do better than us at coping with some grace and less fear.

The task of creating a bit of civilization that has an enduring place in nature is like setting up a card table on an uneven lawn. It takes trial and error to find a place where the four legs stand firmly. Then comes the task of arranging stuff on the table. Obviously too much causes collapse,. A structure that might look stable, if overbuilt, be unstable in a wind, rain, earthquake or the dog brushing against a leg. Thinking through to a good design is going to be important.

The goal of Gardenworld is reached best when we know how to blend the necessity of food with the necessity of habitat, and can proceed with an active aesthetic and even playful sense.

But while we are increasingly clear about the problems, the solutions are not only not propagating as good memes should, but mostly are absent. A major reason is that nobody seems to know what to do, so there is nothing to pass on but fear. We tend to think that the solution is in life style choices, individual by individual. But the real cause of climate deterioration is institutions, not individuals. As individuals, we must work with other, and communities, governments and all other institutions to push toward the draconian moves climate conditions require.

Most discussion avoids local issues, but stick with large issues, such as switching from fossil fuels to solar. However the local details are very important. For example (and there are many, given the house of cards), just a few people walking away from what they are coming to see in the context of global catastrophe, as meaningless jobs and feeling a need to act in this game of musical chairs to secure some food supply, would bring down institutions including governments. Is this a case where we should not discuss the obvious?

Without a goal, efforts are incoherent. Much talk, especially from politicians and corporate leaders, is to change enough to keep the current system - which caused the problems - continuing its momentum. I am proposing that we combine agricultural - survival- and cultural goals -meaning - into what I am calling Gardenworld, not a plan but a guide. Plans tend to be rigid and break, guides are a basis fo reflective judgement on what we are doing. Since most of us want to live in a combination of civilization and nature, why don't we make that the design goal?

And here too, is a fountainhead of modern man's dilemma. He wants both the primitive and the civilized, both adventure and regularity, both romance and comfort : but alas! Neither Defoe nor Rousseau gave him any prescriptions for incorporating these elements in a single life. -Mumford *Condition of man*.

Any politics which does not aim at the the humanization its people and the gardening of the world is an inadequate politics. What we should do is a combination of thought, intent, design and action.

For whom are we designing Gardenworld? Start with belief: what do you believe in and what can be done to implement that belief in a chaotic world, a world that is more like an art or film studio than like a museum. The pieces are not finished, maybe not even started, but the materials and your intent are present. The condition of the present crisis, created by decades of misdirection, do not allow us to regain a healthier version of the past. We have gone too far. Much new is needed. We have sought marvelously better machines, not marvelously better people.

If we all cooperated round the technologies of disease control, energy, food we have a solid chance of doing well. But it would require the long shot of giving up land ownership, capitalist modes of exploitation, wars and local guns. This would work, but it is unlikely we will do it. We might be locked in to our culture through law and character. But we have to try. Each and all. In the introduction I wrote "We have built a society where owning things is more important than having relationships. What is in play for Gardenworld (or any alternative) is the development of an attractive civilization and your own personal development as a thinking feeling reflective healthy person. "

Lets start with the two largest problems, climate breakdown and ecological destruction. No wait, what about population? Wait, what about politics? This is a good start because it implies we can allow in to the conversation anything that might be relevant. No taboos.

If, as the experts say we must, we cut carbon fuel use, who will be affected, how, when? Perhaps the office building goes unheated. Workers don't show and don't get paid, their mortgage goes in default... it is cascading effects like this that are likely to dominate (because of fragility and lack of redundancy in our major utilities) and cause major destruction and havoc. Makes it very hard to predict what will happen, who will do what and when will they do it. So my overwhelming guide are

- You need to cooperate, bring anyone you are meeting into the conversation.
- Take care of those who are hurt
- Make all efforts help build toward survival and flexibility.

- To the extent that you can, build toward Gardenworld.
- Try to think longer term.

In time of crises of the Spirit, we are aware of all our needs, our needs for each other and our need for ourselves. - Muriel Rukeyser

Cutting through the dominance of formalistic economics is going to be important, though maybe pushed to the side by practical needs. Typical economics, say on carbon tax, lays out a policy position but makes no reference to the impact on ordinary people. Say we cut fossil fuel use. Who is affected?

The discernment of “ordinary” people is humbling. Most actually have a pretty good idea of what is going on and who is benefitting. But there is nothing in the press that is guidance to these folks (us too) on what to do, to cope personally, with ones family, with ones community.

This is where What to do enters in. A return to an economy as estate management, where the “estate” is our global home, and its management accepted as the task would be a terrific advance, and I think it implies Gardenworld. Any future society will need accounting of how much we have, how we are handling it, what needs to happen - for the estate, not just for the rich.

The economy is organized around the method of gaining wealth for the upward part of the population. This is too narrow for the future.

Design

Design means thoughtful matching of needs and solutions. When we are working to get to Gardenworld it is important to think through the secondary consequences, the easily forgotten contingencies, of our proposals.

Most climate breakdown discussions (and related problems) are about what has gone wrong and how we got here, but little about what direction to move in. I drafted the enclosed to try to move the discussion. Starting with the idea that we need to rethink society and nature, especially around the forms of agriculture and surrounding culture, and add the aesthetics of greening and the use of the land to grow food and people.

Linear thinking to systems thinking to design thinking. An example of linear

thinking:

The cost of producing electricity from solar and wind is overtaking the cost of fossil fuel production. As soon as that happens society is saved. When $A > B$

But wait a minute. Half the homies in the US are heated with gas, 80% cook with it, and 80% use gas to heat hot water. For a house to change means getting rid of the gas appliances and replacing them with electric. Plus installation and removal costs, and remodeling. Minimu 5k perhouse hold. Ignored.

Systems thinking:

As soon as people actually switch from fossil fuels to solar and wind produced electric, society is saved. When A is greater than B and the switch is made.

Hey wait minute. What do people actually do with that energy? Use an electric chain saw to cut down trees? When A is greater than B and the switch is made and the uses are redesigned.

Economics

I will make a few introductory remarks about economics, politics and philosophy before going in more depth.

Economics has become the instrument for managing the economy for the professional and wealthy. It pretends to be a science but wields power and instead of being an instrument of society, it becomes the machine that drives society, politics and media - where it sees its interests manifest.

Very important to see that the origin of the word economics includes eco - home and nomos - law. But each of these words has evolved. Eco as estate, given that large estates was the main way society was organized in ancient empires, especially Athens.

The word nomos, meaning law or method was first used as a "nomia" meaning equal distribution.

These set the conditions for what management needs to be about - managing the estate for the good of all.

Politics

“Since London passed legislation declaring a state of climate emergency, all indicators have gotten worse.” The differences between science-fiction and the next paragraphs of this provocation are nil.

Politics may be one of the most difficult parts of getting us to Gardenworld. As of now, we need a major cutback on the use of fossil fuels. How can that be done? It seems like it requires an agreement among all because if some resist it would weaken the impact of any group decision. If we have just a few years to act (as we are still increasing the amount of CO₂ dumped into the atmosphere), we need to make some critical moves. Draconian moves (small violations lead to major punishments). There is no path to a lower use of fossil fuels that can evolve from market forces (raising prices, taxes) nor from people's personal decisions about fuel use. Politicians just are not going to do this - yet. If they start to sense that this might be the last election, maybe. Among ordinary people few will comply, most will wait and see, avoid the news, see opportunities (less use of fuel might lower price). So, draconian moves will be necessary that might force the public, society, institutions to move toward a different way of living.

Here are several possibilities. (remember the scientific view is that we must cut fossil fuel use, and we are not doing it.)

As of the first of next month, no more air travel. Well, many people are not at home, but traveling. Do we allow them to return? If they all tried in the days remaining in the month there are not enough flights to do this. And how many would game the system? And would the ground and flight crews show up? Of course the legal response. - well. But this is the kind of action that will be needed to shake up the system and force a move toward meeting the 2 degree (or perhaps 1.5 degree) goal.

Other possibilities

No fuel for trucks as of next month. No food. Total chaos within 48 hours. (Or within minutes of the announcement. (Who could possibly make such an announcement? This is the failure of politics to be able to cope.)

No going to jobs that are not contributions to survival . Who decides?

No fuel for heating homes. Must use electric appliances, not gas. How many? Who manufactures that many with a manufacturing process that does not also contribute to co2 emissions? And who pays?

If a home can'y be heated, why pay the mortgage? Banks fail. Cascading effects are going to be more than the number of sentences in today's newspaper.

Politics as we know t cannot deliver these effects. Could a popular revolt? And would a popular revolt have such goals in mind, or merely the use of violence to get the resources to continue life close to normal?

A popular revolt would be met by the power of the state - if the national guard would show up. Unlikely. The draconian moves would lead to local chaos which would lead to the emergence of mafia-like local strong men "We provide you with security, you provide us with goods." If there are any after 48 hours?

This is grim, yet only by seeing it can we imagine alternatives, and maybe not even then. You should believe that many groups: wealthy, military, corporate, are having these conversations.

But, need we be reminded, without something like this the result will be the boiled frog. Inaction will also lead to cascading failures. Imagine the workers at the electric company walk away from their jobs.

Politics, most technocrats want to avoid. Politics is about passion, not about reason. But by reason they mean the growth and prosperity of the machine, which hurts most people (level wages and increasing costs since the fifties). The result is that people are angry - so the technocrats/elites wan to eliminate passion because it threatens their interests.

Politics is about conflict, and to avoid politics is to hope there is no conflict. But

politics has been since Aristotle recognized as the way society handles actually existing conflict. The history from tribe to monarchy to plutocracy to parliamentary and representative democracy is attempts to deal with conflict in a reasoned way. We are in that process. The unfinished French Revolution seeking liberty, justice and equality, or the American version life liberty and the pursuit of happiness.

One way of dealing with conflict is to get people interested in the issues and this can be done by setting up joint commissions (there might be a better word or phrase) across interest groups to work out the issues. In the process higher order questions can emerge.

To see how complex politics can be I recommend reading the chapter on Spanish politics in the last decade in Castells book *Rupture*. It rises a key question: how can leaders get trust from the people they are leading? Corruption, lying, self centeredness, will tear a community apart and deny it the leadership it needs.

The press, the media, maybe not survive gardenworld. Very interesting question how information flows - or doesn't in Gardenworld communities.

Philosophy

A good place to start is with Jefferson's "Life, liberty, and the pursuit of happiness". It is the modern interpretation that pursuit of happiness was for the self; self centered, self in isolation, almost masturbatory, surrounded by the things we could buy, protected by these things from having to interact with people. This is consumer society ideal..

Jefferson however meant the pursuit of a happiness that helped other people also be happy, and so we help each other. Promoting the natural good of every individual. Government exists for the happiness of the governed.

We hardly know how to make this kind of argument. A few quotes.

Why is it more doubtful that the the large virtues of humanity, generosity, beneficence are desirable with a view of happiness and self- interest, then the limited endowments of ingenuity and politeness.. Whatever contradiction may vulgarly be supposed between the selfish and social sentiments or dispositions, they are really no more opposite then selfish and ambition, selfish and revengeful, selfish and vain. It is requisite that there be an original propensity of some kind, in order to be the basis of self-love, by giving a relish to the objects of

the pursuit—and then no more than the benevolence or humanity.” Hutcheson, contemporary of Adam Smith and teacher of moral philosophy.

Men are really cheated of their happiness in being made to believe that any occupation or pastime is better fitted to amuse themselves than that which at the same time produces some real good to their fellow creatures. If the public good is the principal object with individuals, it is likewise true that the happiness of individuals is the great end of civil society. If the individual owes every degree of consideration to the public, he receives, in paying that very consideration, the greatest happiness of which his nature is capable.” - Ferguson.

The happiness of mankind as well as of all other rational creatures, seems to have been the original purpose intended by the author of nature when he brought them into existence. No other end seems worthy of that supreme wisdom and benignity which we necessarily sacrifice to him; and this opinion, which we are led to by the abstract consideration of his infinite perfections, is still more confirmed by the examination of the works of nature, which seem all intended to promote happiness and to guard against misery. But by acting according to the dictates of our moral faculties we necessarily pursued the most effectual means for promoting the happiness of mankind. - Adam Smith.

For gardenworld to be a success we need this level of educated thinking. Philosophy should be a big deal. That it went off the rails from Socrates's question, "what is the good life?", to a compulsive concern with the subordinate questions "how do you know", needs to be reworked by us. Philosophy should be good open honest thinking and questioning about who we are, what is the good life, and what are enabling conditions for that good life. So much comes from the Greeks, ethics, and ethos, logic, and of course the big issues: philosophy, politics and economics. The Chinese have a similarly complex development of mind and heart. My wish to know more about Chinese thought is thwarted by its complexity - which is probably the first thing to understand.

There is a long tradition of integrating humanity with nature, but it society moved ahead with plan A - mechanization and financialization. Rethinking humanity and nature leads to a need to rethink the questions of responsibility. What are we supposed

to be doing? Social science suggests that when a person acts it is a combination of

- DNA
- Experience
- Current circumstances.

And current circumstances are in the context of our sense of environment, from our immediate surroundings to the planet to the universe. climate breakdown and assorted politics and economics will drive people out of much of their current circumstances. The suggestion is that we need to pay more attention to circumstances. If we put people in bad circumstances (the Germans after WW1) they will behave badly. Hence, don't put people in bad circumstances.

The tendency that we need to fight against is using big data to manage. If we can pick up correlates of bad apples and get rid of bad apples, job done. But the cost to thoughtful and fair humanity is huge. "We deem you potential criminal because you have the following 316 correlations with bad criminals. Bad circumstances enumerated, bad life choices, enumerate.". But in this approach there is no tendency to change the conditions, only remove the person.

Aristotle was interested in the good life and how it could be achieved in different circumstances.

"Human kind is more than the aggregate of all humans " It is the society of all humans in history. All the people existing at one time are not interconnected in a shared project, but all humans are.

This suggests the importance of history, tradition, myth and ritual (even morning coffee or tea is ritual.)

What we desperately need from philosophy is to sort out the quantitative from the organic. Writers like Bergson, Mumford, Feyerabend and, more recently Eisenstien, have mused about the differences and the consequences.

Comparing the mathematized sciences with the literary soul is a project we need to engage. Philosophy should be meandering intelligent witty and playful conversation about who we are and what kind of life we should be trying to live. It is important to have a view of human life - what is it? When is it good, what is the balance between that "good" based in biology or culture? This knowledge is very useful if we are to make a better world, where "better" means support and encouragement for human growth and development. The question to ponder is, who do we become under different conditions? The relation of individuals and communities to a larger context is a puzzle that has stirred human debate but we do not read much philosophy. A fairly new book, John Kaag's American Philosophy, a love story, weaves personal, relational and intellectual

together in an attractive way worth reading. What struck me was how little I knew about American philosophy - people like Emerson, Thoreau, James, Santayana, I do not know well, but many others I did not know at all. Their stories are poignant, the kind of stuff human lives are made of, and of which we, not reading much in the humanities, do not know.

What are humans? We are vulnerable, conscious. The various answers to these questions are what makes cultures different. The Greeks, the Egyptians, the Middle Ages, the Renaissance. All have different views about what humans are. A common thread was the understanding that people need food and are likely to get angry. The solutions to these vary and Gardenworld will probably require new differences. As the society we are part of seems to be transitioning toward something new, the sense of humans may be in need of rethinking. The old cultures provide some guidance, but because all past cultures are dominated by elites and supported by some equivalent of priests and dogmas, we need to struggle to keep the question open. What we may want is an economy, a society, that supports being aware of each other in this ways, and supports its significance for us. Writers work hard to get out in public a more robust view of human nature. Novels such as D.H. Lawrence's *Rainbow*, are helping to educate us to the reality of relationship affecting the space we live in. A world of consumers feels different from a world of existentialists.

A real life with philosophical reflection is what we all should be doing. Make notes. Write out what we believe - and keep revising it. I have friends who read a lot of literature, but no philosophy or anthropology, or who read lots of history but never a biography or novel. It is the crossovers where creativity can be released. Some assumptions just don't fit us now and need to be rethought. They are tied to their times. For example, the sense that humans are just different from animals. I think this assumption feels crass to us and misses the elegance of understanding our continues with animals, especially caring and playfulness. The attractiveness of youtube videos of animals being smart, playful and caring speak to an important part of ourselves we have underdeveloped This just means we have to work harder. But that work feels good, it is challenging and deeply interesting, an exploration of human nature, including our own.

Confusion about life itself. What does it tell us about who we are? Philosophy started with the Greeks with questions of the good life for human beings - what is it? But the answers, being never fully satisfactory, led to questions of how do we know. But The question of the good life was replaced by concerns we call ontological,

theosophical, or epistemological. And these words seem to have lost their potency. We now know there are atoms, information, time and space, energy and perhaps chaos. What happened to the people and the investigation of what is good for them?

There is a resurgence of human centered anthropology and in the rest of the social sciences small protests and new initiatives, but they are all rather isolated. Political science is one of the most ignored. I was in several conversations yesterday where I heard "I skip politics, I hate it," said with explosive force. But there is always conflict and factions and perspectives - hence we always have politics, and turning our back on it encourages the ambitious authoritarians.

Some critical issues in the development of a philosophical perspective for Gardenworld:

Biology. We need a view from biology of what human nature is because it is that nature that we are trying to serve with a society that meets needs and aspirations. What can biology tell us?

First is the continuity of humans with animals. The popularity of animal videos on youtube is evidence of the deep sympathy we feel for their playfulness and caring.

Psychology. It is crazy making to separate psychology from biology or society and culture. The intersection of biology and society gives rise to psychology, which begins with the needs for food warmth, sounds vision and all that goes into child development. But here we get to the core of What Garden World needs to be about. It needs to support child development in a very broad range of issues. I urge reading biographies to get a fuller sense (each book provides you with the knowledge of a life) of the needs of human thriving: nature, civilization, art, parents, neighbors, culture, educational places. There is lots of work to be done to understand how and for whom we are rebuilding society post climate breaking.

Mind is always cultural and biological. Note that computer models of mind tend to focus on the biological and treat culture as just data to be manipulated by brain. My re-reading of William James Principles of Psychology, 1890, point out how deeply the mechanical model as "science" dominated human thinking in the 19th century.

There is no possibility of mind without context and any context requires that the person is either born in that context or migrates to it, and this event is cultural. The importance of GardenWorld thinking arises at this point.

The question of experience is connected to ethics. The word comes from Greek *ethos*, the moral climate we live in. In the US today it looks like the ethos is terrible, but at the

same time, there is more awareness of it than there used to be. Many people in cities and the countryside are quite extraordinary leading demanding lives with grace and care, honest to the core, and doing the best they can with what society offers in education, media and politics - and jobs. Which is it? How do we engage them? Just do it. Become a participant. This kind of conversation is going to be increasingly important as we cross over into the reality of serious social change, some forced by circumstances, some perhaps freely chosen for our benefit.

Community and self development are often are put in opposition, but we need both. Strong individuals require a strong society, and strong societies require strong people. The self is not favored in isolation. The complexity of our brain is stirred by the presence and interaction with others.

I am appalled actually by the impact on society of people whom I don't like very much: Hobbes with his war of all against all, and Locke with his strange idea of property - you can take as much as you want providing it doesn't interfere with others doing the same. , and maybe Rousseau with his general will reified, and Kant with his claim of freedom by imposing fixed ideas. But they were all honestly struggling with issues of humanness, power, wealth. And we need to test and expand our thinking by coming to terms with them. The key point has to be that in psychology and therefore in a reasonable philosophy, everything is connected to everything.

Though much of it is hidden. Interesting concept, Umwelt, German for world, Von Uexkull in the 1920's. My mind is only understandable through its history of connections to others and to the environment. This is the psychology, the nature of humans, that a good society should support. It should be the major design criteria. Our current view of a human is that they can be understood in isolation from others. But my body is fully engaged, every neuron, every hormone. "Every neuron is listening to the mutter of the crowd." (Jerry Lettvin)

Is humanity something other than those who share a biological substrate? Have we become a humanity as a shared project or are we different civilizations? Is humanity just an optimistic attempt to include others as part of "us"? We experience what others experience but maybe not quite the same. As we move from simple physical properties, the stuff Galileo called primary, this seems truer but hard to prove. There is a fascinating book, *Protective Coloration in Animals and Men*, that show how prey avoid predators. Angelfish with a stripe across the eye hides the pupil, but also looks like long grass. Angelfish that live out in the stream have the line bent - current - and those close to shore the line is straight - no current. He argues that the "experiments" which also work

on humans suggest that we humans and the predator are seeing the same thing. Maybe as close as we can come to experiencing across species. There are many examples in the book.

Human nature needs to be discussed. So much depends on a good understanding of people. Confucius was asked by a student what was most important to know. "Know your fellow men," was the reply. In the early 19th century, well into industrialization, sophisticated writers thought that all labor was pain and to be avoided if one could afford it. The pleasure in creation was not recognized and the pleasures of carving wood, making a painting, designing a house, were not given credit as positive aspects of life. We have so much to unlearn to get us to GardenWorld.

We do not study very much. We do not take our basic concepts and ask what are they about. Lao Tzu says.

Bestowing no honors keeps people from fighting
prizing no treasures keeps people from stealing
displaying no attractions keeps people from making trouble
thus the rule of the sage empties the mind but fills the stomach
weakens the will but strengthens the bones
by keeping the people from knowing or wanting
and those who know from daring to act the sage governs them all.

This can be seen as repressive and controlling, Keeping the people in ignorance. But it could be a plea against consumerism and to leading people stay close to what they could know from experience. We do not discuss things like these differences nearly enough.

We are born in community and individuality. But the community/individuality dimension is one of the great difficult points in how to organize a species. We have learned that too much community is oppressive and too much individuality is lonely. Our philosophy, Economics and especially our politics move around this dichotomy as a kind of strange attractor. In China the strange attractor is more yin and yang, always blended. Yang is clear, energetic and focused, while yin is quiet, shadowed, aware.

Self reflection says that our own well being requires a balance and our key idea is that, on reaction to population and ecological damage, Gardenworld is the path for a

thriving humanity.²⁷

Fred Hoyle the cosmologist wrote “The reason we are not visited by aliens is that no civilization in the history of the universe has been able to develop the technology to get here and survive politically.”

One common view is that the purpose of life is to get to know yourself.

Structure of the economy

People will need to be included, and redeployed away from consumption and pollution to relationships, art, and intense common sense - which means lots of effort into meeting basic needs. We were dependent on an energy regime that is going to be gone. Maybe substitutes but maybe just less. My thinking is that most current (2019) energy discussion still moves at the level of policy in the abstract without any consideration of implementation at the concrete level of the firm or the home. Lets drill down. In the United States about 50% of the houses are heated with gas. This raises several important questions:

Who pays for replacing the gas heater with an electric heater? That includes installation and remodeling costs as well as the cost for the device. The number of new electric heaters that would have to be manufactured is on the order of 50-100 million. Is not such manufacturing going to produce more pollution and use more energy? It requires old technologies of mining the minerals and producing the plastics that go into the manufacturing of these units, as well as their transportation from mine to factory and from the factory to homes. How are 50 to 100 million gas units going to be de-commissioned? There are many parallel questions with indigestible cascading effects. In the transition, people will have a hard time. The goal, however, can give hope and roles.

The goal must be a well thought out blend of technology and growing food.

Aspects of such a human centered cooperative system:

- Well thought out blend of tech and food.
- Good growing and good living should share spaces.
- An awareness of human nature and the human life cycle leads to thriving Core to human thriving are relationships, love and cooperation as well as

²⁷ A great place to start is with the onsite Lao tzu and more of the classical texts where you can begin to learn to read. wengu.tartarie.com . Also suggest Liebrman, *Strange Parallels*.

Bergson, Henri *Creative Evolution*, and Eisenstein, Charles, *Climate: a new story*.
Kaag, John *American Philosophy, A love Story*.

individuality.

- Use of education and health as enablers of participation.
- Aesthetics and design are guiding principles.
- Concern for the experience of people is the important guide to policies.
- A recognition that the historians have been right: democracy and quality of life are inconsistent with deep financial inequality.
- Equality does not mean same, Diversity is wonderful, each person is one.

There are hundreds of ways of putting together such a list. But it is important to be aware of a need for guiding principles and to develop your own working list.

Some of the strongest thinking about the economy comes from Roberto Unger, mentioned earlier. His view, that the shift from hierarchies at work to teams at work is fundamental, not only for the work but for the workers, shifting from following the rules to inventing the rules in teams. His view is extensive, starting with human nature (we all can be much bigger than we are), and proceeding to the institutional base - democracy and work - to support getting bigger. He is very realistic about the failure of the progressives to have any story for how to move forward or even what the goal of moving forward would be.

Another very different thinker is Jeremy Rifkin who proposes that we are moving to a zero cost society - anything, with automation, can be made for almost no cost. In parallel he proposes a compassionate society. He even more than Unger has not had a good hearing.

Viewing economic history from an empathic lens allows us to uncover rich new strands of the human narrative that lay previously hidden. The result is a new social tapestry—the empathic civilization – woven from a wide range of fields including literature and the arts, theology, philosophy, anthropology, sociology, political science, psychology, and communications theory.

This is important reading. I can't do more than point here, not summarize.

Proposed structure of the economy.

We need at least a sketch of where we might be going. Gardenworld will be humanly intense. Sheer automation won't do it because it ignores the task of creating great spaces to live in. Tech can't deal with aesthetic issues.

Key forms of "employment" (I put this in quotes because how people are paid and what happens to massive unemployment needs lots of thought - and compassion.) in Gardenworld in order of numbers of people, be something like:

1. Green everything for agriculture and aesthetics, blending growing food with growing people.
2. Welfare for those hurt by the transition
3. Manage 1 and 2. (Huge)
4. Much smaller but still important, manufacturing
5. Arts and education for the culture of belief for 1-4.

1. **Green everything**, landscape remediation, aesthetics, climate remediation, and food. We know that green planting can have a beneficial effect on local climate, through cooling and water retention. But also greening as in parks, entrances, flower shops, fresh food stands all contribute to the quality of life. It is not so much agriculture as agronomy and landscaping. Farming and gardening. How can We arrange what we have to be more attractive and interesting.

Land reform and capitalism

Land has since the world got crowded enough that there was conflict over mine or thine, ours or theirs²⁸, a major source of the good life and wealth. There growth of the population means fewer acres per person and this drives up the price making "owners" richer. With this increase they could borrow and with the borrowing invest in industry or trade. Hence wealth and the separation of the people into owner's and workers. .

This dynamic will be a major source of conflict in the crisis world. The failure of some real-estate to sustain life (cost of heating and cooling making many building sun-useable) will mean its value decreases - or does it? Migrations will tend to keep the

²⁸ see Linklater, Andro, *Owning the Earth*.

price up, even if not useable in the old economy. But what of the new? Land will, if capable of growing, be useable and it will be used, by force, legislation, who knows. Asset prices become chaotic since futures, the basis of asset value, become indeterminate.

Land will be a major issue for organization, use, and conflict.

Another problem is that, as we shift who grows what, where do the seeds come from? Who owns them? How to prevent price gouging.

2. Welfare of those hurt by the transition.

Health and the care, feeding, and housing and occupying of all those hurt by the very messy process of transitioning, since people will have to give up places of living for the new opportunities. Jobs will change and places to live will be repurposed. This is a combination of health, medicine, and fitness. Distribution of income, distribution of food and temporary to permanent re-housing.. - creating a sense of belonging will be hard in the chaos.

Gardenworld says the whole community should integrate into as attractive and sustaining a world as we can make of it.

We will be up against human nature. If I can get paid without working, why work? Incentives do not add up to a sense of responsibility and care for the community.

I would take this far. We are talking about the actions of each of us in reaction to the difficulties of others. This must extend to the way too many in prisons of one kind or another, starting in the United States. We need a good Samaritan society for the individual. What resources does each person need to to reconnect. Exclusion only as last resort. Two million and more in the US, 2 million broken hearts, and amplified out by family members, children, spouses, friends, who suffer through this. The society should take on the well being of everyone. And I expect that under the impacts of climate breakdowns, he prisons will be opened anyway and we need to think continuously of inclusion

Law is important, a society following aspects of nature, reason adds to the range of actions. We need continuous open discussion. I like to think there is among us a christian community but I do not see the christianity at play. I am puzzled by this.

Population and its distribution continues to be a major problem - well, I don't want to say problem. Being alive is not a problem to be solved but does raise issues to be dealt with. Where should people go with rising temperatures? How do they get there? It might be a series of resettlements. How can we deal with them compassionately? Certain to not expect that there is a way to return to the past. It requires new

compassionate thinking and imagination²⁹.

3. Management of 1 and 2 will be huge.

The scope of the emerging task - lets start with some possibilities with a rapidly deteriorating state of affairs.. Beginning with a series of disruptions, lets start with the apocalyptic. Energy ceases to be widely distributed, people have no place to go to work, food deliveries are scarce, water supply might be turned off. There are too many guns. Violence is a problem, and cannibalism is the monster arriving. Mafia like organizations quickly emerging (within a day of any major disruption). We will need more managers than ever before. Part of management to provide unfortunately needed security as people are hurting and in flux and trying to survive, for themselves and their families.

The management we need, open, experimental, common sense - requires also some powerful analytic tools. One perspective is that of energy an the amount actually used up inmaking stuff. “ The problem with the market is everything is sold cheaper than what it took to make it.” That is, stuff made by the earth, children made by mothers in unpaid labor that are then “hired” by corporation at far less than the cost to grow those children into functioning adults.

Management is going to be affected by progress - and ideology - in science. A crucial distinction is between mathematizing and narratives. All scientific papers are embedded in some narrative about what is important and how the quest is going, but usually the narrative is left implicit, and students in science and management are not taught how to make better narratives.

This broad management should not be bureaucratic but problem focused. Difficult to achieve as the people who come forward will use their own culture to try and manage. Think business and military.

Another key to management for Gardenworld is to question its current reliance on neoclassical economics as an adequate management system. The role of profit and ownership need to be rethought, but the pressure to maintain current patters of thinking borrowed from economics will be intense.

What we need is grass roots creativity but the usual management models people are

²⁹ See Rifkin, Jeremy The Compssionate Civilization.

aligned with are top down. Time for a little thinking. The Chinese have the following idea. Experts (through a rigorous meritocratic educational system) at the top that set directions matched by grass roots democracy and innovation at the bottom with projects in between that weave the two together. This would require a tolerance by the top for activity at the bottom.

But we are in serious need of a culture shift away from authority and narrow experts anyway.

Herbert Hoover³⁰ took on the job of organizing relief for Belgium after WW1 when the entire population was facing starvation. The way he organized it was extraordinary, and the size of the project way beyond any such rescue mission in the past, organizing American farmers, shipping, infrastructure and bureaucracies. Some aspects of importance: the reliance on volunteers (not exclusively), the top-down authority (important to discuss), the needed technical knowledge, the speed, the distribution.

But that was a one time event looking for restoration. What we face with Gardenworld is a long term project where recovery to some state in the past is not possible, but permanent shifts in the organization of society will be necessary.

A book such as Don Michael's out of print *Planning to learn and learning to plan*, lays out the complexity but makes it is clear that we need lots of learning and every step should include reflection on what we are learning. Make sure to look at each step of coping as capable of criticism, and part of a learning process that must be consciously part of every initiative.

This will be essential for Gardenworld because local experimentation, while it should dominate the overall social evolution with local experiments, will benefit from networking local efforts, not to impose plans, but to share what is being learned.

Roberto Unger, from Harvard Law faculty, ³¹takes the view that leading tech companies have developed ways of management that are disbursing authority and fostering cooperation and learning horizontally among workers. This is both for their own development, but also for the creativity and innovation needed in the experimental society to come. He makes the obvious point that, so far, that way of managing has been relatively limited to leading companies, leaving most workers in still traditional forms of hierarchical control management. The new method which he calls vanguard

³⁰ see Hernbet Hoover: an extraordinary life by Kenneth Whyte.

³¹ Unger, Roberto

http://www.robertounger.com/en/wp-content/uploads/2019/03/FINAL-TEXT-PROOFS_The-Knowledge-Economy-2.pdf

management, need to be quite consciously spread among all the people participating in the economic activities of Gardenworld.

We realize that jobs, work, action, innovation, teamwork, are not the same things. When we think of community cooperation, guaranteed income, the rewards of team based creativity, we face the facts of how to organize to feed, house, cloth, water, health ourselves collectively.

One proposal deals with the logic of the guaranteed annual income³². Each person receives 13k per year, 3k goes to a medicare fund, the balance distributed to each citizen in monthly installments. People get a passport at birth which qualifies them, and hey all have a bank account. No welfare. If they get 10k plus a 7.50 an hour job, that is an extra 15 k, makes an income of 25k. Not terrible. Two living together gives 50. Fosters cooperation and group living.

Living either in the vanguard or the rear guard has implications for point 5, education.

4. Making needed things.

Manufacturing of stuff, tools, home, public spaces will be increasingly looked at as life cycle process - inputs become things which in turn, as they are used up, instead of being trashed are designed to be inputs to yet other systems. Nothing is wasted (but it does take energy to run these cycles,

The shift from craft to factory production separated the worker from the user. We used to have relationships when we went to the shop, discussed what we wanted, had an exchange - not only of the object, but an exchange of personalities in conversations.

I tried to make it clear that when we talk with someone we have a model of that person inside us, every neuron is involved, every hormone is flowing. It can't be stopped, but it can be recognized for the amazing thing it is. We have a conversation with someone on a help line, they are really helpful, we had a warm exchange. But then finished. Never do we return to that person. The changes in us for having had the conversation are lost, learning never built on, relationship capacity (how much do we have?) spent, gone.

If we see the making of things as an opportunity for relationship we might find that

³² Murray, Charles. a plan to replace the welfare state.

This proposal wa also made by Yang in th second democratic debate. Of course at this point by many others.

we chose to interact in ways that create relationships that last. Local production does that. There will be new experiments. The goals should be the engagement of our whole person and the engagement of the whole person of the other. The goal is not necessarily love nor even friendship, but perhaps assessing the person's role in the politics of the community and further understanding what kind of community we are in that has such people. All valuable for making a society.

Many people feel why be bothered, it gets in the way of my tasks of securing a living, maintaining my health, watching TV. But the model behind that is one of narrowing us to a cog in the megamachine.

5. The art and education to support 1-4.

Here we are really talking broadly about the whole direction of culture, personality and institutions.

Education as been organized for getting people into privileged position or for being placed as cheap labor in the corporations of society.

I start with art. This is a major shift and I really am proposing a new theory of art education and the role of the person. The way society has worked it makes it that the person is looking at entertainment, say a movie or a painting or a poem, as consumption, and the arts as if what is important is the work being appreciated or purchased. But the person doing the experiencing is having experiences. Their whole psychic being is involved.

Lets turn it around. What is most important is not the work of art, say a movie, but the experience stirred up by that work. We need to get people to move away from worship of the art and its geniuses to interest in their own reactions. Now people say I don't have any talent. But that is imagining them not being able to produce the piece of art, movie, architecture, painting, even letter to a friend. But all these people have a reaction to the movie, the painting, the building design. Education should shift away from production of the thing, though still important, to a new emphasis of educating people to explore their own experience. This would give a new coherence to society and the appreciation of people generally.

This approach works also for things like cooking (paying attention to the experience of eating good food, not just its preparation), and science. Science? Richard Feynman, with whom I was a kind of groupie at Caltech, had the view that the value of science was not so much to society as to the scientist: not in summarizing data, but in getting us to look at things we would't otherwise have been able to experience. The way the sun makes the waves, the way light goes through glass. At Caltech even physics was

taught as a kind of plumbing. "Here are the equations, learn how to put in numbers and get a result." There was rarely any talk of how interesting the problem was and how amazing the solution, like understanding the precession of the equinoxes or how some guy with a camel in Egypt a few hundred years BC was able to measure the distance to the moon. All technique, formalism, professional, but lacking encouragement of awareness and imagination. Modern science is fascinating - but fascinating to real people. Reducing it to established formula and avoiding the process that someone followed to get there is ignored and with it the sense that the student too should follow consternation and imagination.

Here is an example. A short and not terrific poem written yesterday (May 2, 2019) by a friend.

this morning
fog lifting
silence returns the
dead crane
lying out on the marsh
here in her room
my grandmother lies dying
she shot herself.
who shall come for the crane
i am eating cereal.

If you look not at the quality of the poem, but of your experience while reading it, what got stirred up by it, that is what I suggest we should shift our educational attention to, to help people have their experience and know what to do with it. Seeing the work of art as the goal is a hierarchical principle that avoids dealing with the experience of the experiencer. Rethinking this, for humanities, science, engineering, management, social thought would reorient education. The word enthusiasm comes from the Greek en - theus to have a god within. We need to teach to the source of energy within everyone, and teachers need to be dealt with to touch the energy in them, long squelched. Teaching the teachers.

All teaching should have the estate management model as a guide: we are building improvisations and innovations step by step toward Gardenworld. Skill and imagination. The many projects in the world with using gardens to educate prisoners, children, and the handicapped say here is a model that should be extended.

Art

Society tends to focus on the artist - film maker, popular singer, painting, poem, architecture. The Mona Lisa speaks of genius we all agree or do we?

Looking at the painting stirs up feelings. But art education tells us about the painting but not about the experiences stirred up. We have made art with its geniuses and unreachability special and beyond us. A mistake.

All art, good and bad, stirs us up and that is the really interesting part. Not to deny the importance of the work itself, but to bring back into focus the experience of the experienter, to teach people how to look at their own experience.

This would be keeping with a more democratic less aristocratic approach. In fact when a person experiences music or painting film or dance, their whole body responds, and they can learn from what the art stirs up in them.

This would lead to a different social contract between artists and audience. The difference between the two would be less.

I once taught a seminar on the psychology of creativity at the Corcoran School of Art in Washington. I worked with the students to develop a perspective on creativity that would last their lifetime. What we came up with was that the human (humus) rises from the earth and our emerging bodies are caught in the crosswinds of culture and its symbols. The symbols current in the culture only partially map onto our experience. The media given symbols are not adequate to reflect honestly nor interestingly on our experience. The artist is the one who feels the awkwardness of that misfit, and their career as an artist is struggling to make better symbols (art) while the normal person lets it alone. How far can we go in getting "normal" people to take their experience seriously and work to make their ideas a better fit? This question, how far can we go in the development of everyone, is critical for a better future in the face of a riptide of counter forces dragging us down.

Stress on design.

Take an electric toaster, or a refrigerator, and especially a car. What we have is a few principle of technology wrapped up in a package. That package took many years of invention and innovation to create a package that works well. The difference between the underlying tech and the package is design. What is amazing is, given how important the design is, how little it is taught.

Lets go to a higher level. In the theater there is principle called scene-act ratio³³. When the curtain open for act one, or the first scene in a movie., we get a sense of what kind of action we are going to see from the set itself. The scene contains implicit the acts that can be performed there. This becomes a design principle: when we design spaces, what we want people to be able to do needs to be included in the design. So many modern buildings, and their renditions have large spaces with no place to sit and no protection from the weather. As though the building is the work of art, not the architect's understanding of its impact on people.

Chris Alexander³⁴ has written eloquently about how ordinary people can easily judge between two images as to which one feels more alive. We need, in any activity, to think of how it moves toward garden world in a way that engages ordinary people.

We teach art by talking about the work and the genius who created it. We could spend more effort on helping people develop their own experience of that object - how it feels, what it evokes. In our culture the contemn for others and usually oneself is crippling. We just need to engage people in the Gardenworld project by appealing to yet undeveloped aspects - aesthetics and ethics - if their own talent OF WHIIF EVERYONE HAS SOME.

The need for belief

People seek belief. There is no day , or night, without constantly thinking through where are we, what am I doing, what is it all about, what am coping with? Those three, economics, politics and philosophy - might morph into new philosophy, new politics, new economics. "The web of our life is a mingled yarn

³³ se Burke, Kenneth A Grammar of Motives, one of a number of books f is tht discuss this and related issues, well worth tudy.

³⁴ Alexander, Chris, The Naturfe of Order and website <http://www.natureoforder.com>

and <http://www.livingneighborhoods.org/ht-0/bln-exp.htm>

good and ill together.” People want a sense of the world. It gets tricky because the sense of the world also includes thought about the world, not just raw experience, and that gets into culture. I like to think that we have a new culture emerging but I am aware that the old cultures keep their presence in the apparently new. All the old gods will remain and need their respect.

Belief does not require a rock solid foundation outside ourselves. Meaning emerges from what we do, especially what we do repeatedly becomes the meaning of our life.

Fundamentalism is a threat and stands in contrast to the idea that there is no foundation. And there isn't. Nothing solid we can find that exists independent of our thinking. No man is an island but we all together are. We swim in life's circumstances, we tread water, we hold each other up. But don't be too angry at those who insist on bed rock.

A new culture emerging might be something like

Deep understanding of the human and our place in life and death. It might rely on an ethics that takes caring seriously but also includes some aspects of science: honesty, experimentalism, the legitimate of questioning, and knowing there is no final state of culture but a continuing evolution as humans and circumstances interact. A feeling of joy in participation knowing that danger lies at the edges - and sometimes in our midst, and that this is not only ok, it is the dance life offers. And that our task is “to make the frozen circumstances dance, we have to sing to them their own melody.”

William Morris, Olmstead,
(To come)

Word histories

I made a few parenthetical suggestions about the early form of several key

words in chapter 1. Remember, we are looking for leverage points that can help us create a better future. I find histories of key words extremely important, showing the rich origins compared to the narrowness of much contemporary use. Old meanings resonate with a broad range of our feelings. New meanings feel relatively dead. For example - from Huizinga, *Autumn of the Middle Ages*.

When the world was half a thousand years younger all events had much sharper outlines than now. The distance between sadness and joy, between good and bad fortune, seemed to be much greater than for us: every experience had that of directness and absoluteness that joy and sadness still have not in the mind of a child. The great events of human life - birth, marriage, death - by virtue of the sacraments, basked in the radiance of the divine mystery.

I lived in Mexico in the late 60s and remember the local church and its hourly bells and the people coming in and out. Inside were music, paintings, sculpture, carved wood, stained glass windows, semi darkness and the candles. Even the poorest person felt the right to go into that space of high culture. Nothing in contemporary life is like that.

Next time you are near such a church enter in, not because it is religious but because it is cultural, and feel the impression it makes on the various parts of your body.

Technology, now usually seen as coming from

techne, Greek for craft or skill, and logos, meaning structure, for earlier Greeks, say 7th century BC techne meant engender. Sex - to create the next generation. This meaning slowly changed from the 7th to the 4th century BC to the creation of things, crafts, skills, arts. These activities clearly enhance the lives of the people who do.

Related,

Truth is the same as troth, as in "I pledge thee my troth." It was a relationship word meaning faith with another, part of medieval culture. It moved then to the relationship between a craftsman and his tools, "this blade is true," and finally to the relationship between things in the abstract, "what is true."

The connection still exists between engender and craft. In the coal country of

rural Pennsylvania I saw a t-shirt that read "minors do it deeper." But there are costs, especially when skills are hired out for wages rather than remaining a vital part of their owner's own small business. Adam Smith was very critical of the human effects of division of labor, taking an interesting project and breaking it down and giving each part of the process to one person in repetitive, routine, work. Read George Eliot's *Silas Marner* for an example of a person crippled by a work life of spinning wool. I once was a consultant to the International bricklayers Union and got to visit rural brick locals and saw how the members enjoyed their pride in the photo albums they kept of great projects and brickwork. Modern brickwork does not get the same thrill for the workers. The drift is from the expressive to the passive from early language to ours is a fascinating and somewhat depressing story.

I want to go into the origins of a few more of these key words. I do suggest mulling these over as they contain hints of a different kind of world for us we may want to move toward as the overly mechanical and financial world we have breaks down.. These words speak of ways of being that we can study in order to see a more organic life and society we can work for. Words evolve meaning and their history tells us about what motivated each word's earlier use, and how those meanings changed over time. Often the early meaning still has an effect on modern readers of these words, but work unconsciously.

Cosmos has such a history of amazing leaps in use. For most of us, and all the way back to the Athenians of the classical period, cosmos meant the larger frame of all existence. But cosmetics also comes from this word. How is it possible? Cosmos, in the earliest Greek, meant the pattern of silver studs decorating a horse's collar. We can see how the word could be used by a poet or a child, in a moment of ordinary creativity, to point out constellations of stars; "see the cosmos!", and from there to name the container of those stars, or perhaps all the stars together, the cosmos. But the pattern on the horse's collar is also a necklace. Hence a short step to enhancement, to cosmetics. These shifts give us access to the experience in the world of early humans - and us.

Capital is the word that most shook me when I discovered its origin. We all use the word, but no one I asked knew where it was derived from. It comes from cap, latin for head, and used as in "a new head of cattle," which we still use today "How many head you got over to your place?" So capital come from the birth, production, of a new calf. Then the question that emerged was, ok, who owns it, what can be done with it? Among herders in North Africa there were clear conditions. I could give you a goat and you could eat it or give it away, but you could not breed it, since that threatened the grassland equilibrium. The birth producing of a new calf is the origin of the ideas of

capital as production, surplus, increase, and the organization of that process of engendering. Sorry for the derail but this is crucial for reimagining the meaning of production in a sustainable globe. The *nomos* in economy as I mentioned in chapter 1 is derived from equal distribution, which meant early in Greek the division of land for grazing cattle.

Let me quote from some of the easily accessible Wikipedia entry on cattle.

Cattle ... was borrowed from Anglo-Norman *catel*, itself from medieval Latin *capitale* 'principle sum of money, capital', itself derived in turn from Latin *caput* 'head'. Cattle originally meant movable personal property, especially livestock of any kind, as opposed to real property (the land, which also included wild or small free-roaming animals such as chickens — they were sold as part of the land). The word is a variant of *chattel* (a unit of personal property) and closely related to capital in the economic sense. The term replaced earlier Old English *feoh* 'cattle, property', which survives today as *fee* (cf. German: *Vieh*, Dutch: *vee*, Gothic: *faihu*).

The key insight for me is that capital is what comes from breeding, sexual encounters managed by herders, , creating new wealth (remember the early use of *techne*). Creating that wealth was a key part of early life, from the hunter gathers who foraged for the fruits of nature, nuts fruits, fish, frogs, turtles, rabbits, birds, roots and seeds... and on to early agriculture. Cattle came at the point in time when hunting and foraging was slowly (a thousand years) replaced by herding and planting. Later I will discuss the resistance of some humans to that process. The original settlements were fenced, not to keep marauders out, but to keep slaves in.

Besides ownership (whole tribe, families, individuals?) , there were other questions: how to breed, feed, and care for cattle/capital. Aristotle said that money couldn't breed so interest on debt was not reasonable since money did not sexually reproduce itself, even though the Greek and Romans used the same word, *tokas*, for interest on a loan and offspring from cattle.

You can see why I say that early economy was organic and about reproduction. Capital is increase through the magic of managed sexuality, one of the greatest

mysteries of the universe, and still felt as such. Sex and food are still fundamental for society and life, and thinking through how to deal with them will be a major concern of GardenWorld and its politics.

Often when entrepreneurs talk of what they are doing I seem to see a misty spiritual look on their face because they feel they are engaging with the deepest mysteries of the universe. I hope you can sense why it is important to feel through what a society is from these histories, incomplete as they are..

So, in in the spirit of filling up our studio space with potential relevancies, quoting from the online Etymological Dictionary

capital (adj.) early 13c., "of or pertaining to the head," from Old French capital, from Latin capitalis "of the head," hence "capital, chief, first," from caput (genitive capitis) "head" (from PIE root *kaput- "head").

Meaning "main, principal, chief, dominant, first in importance" is from early 15c. in English. The modern informal sense of "excellent, first-rate" is dated from 1762 in OED (as an exclamation of approval, OED's first example is 1875), perhaps from earlier use of the word in reference to ships, "first-rate, powerful enough to be in the line of battle," attested from 1650s, fallen into disuse after 1918. Related: Capitally.

A capital letter "upper-case letter," of larger face and differing more or less in form (late 14c.) is so called because it stands at the "head" of a sentence or word. Capital gain is recorded from 1921. Capital goods is recorded from 1899.

A capital crime or offense (1520s) is one that involves the penalty of death and thus affects the life or "head" (capital had a sense of "deadly, mortal" from late 14c. in English, as it did earlier in Latin).

Early 15c., "a capital letter," from capital (adj.). The meaning "city or town which is the official seat of government" is first recorded 1660s (the Old English word was heafodstol; Middle English had hevedburgh). For the financial sense see capital (n.2). capital (n.2) 1610s, "a person's wealth," from Medieval

Latin capitale "stock,
[The term capital] made its first appearance in medieval Latin as an adjective capitalis (from caput, head) modifying the word pars, to designate the principal sum of a money loan. The principal part of a loan was contrasted with the "usury"--later called interest--the payment made to the lender in addition to the return of the sum lent. This usage, unknown to classical Latin, had become common by the thirteenth century and possibly had begun as early as 1100 A.D., in the first chartered towns of Europe. [Frank A. Fetter, "Reformulation of the Concepts of Capital and Income in Economics and Accounting," 1937, in "Capital, Interest, & Rent," 1977]

In current anthropology and early history the story is showing itself to be even more complicated. Goetzmann's terrific book, *Money Changes Everything*, shows that in Macedonia 5000 BC the exponential growth of cattle was already understood, along with contracts, interest, and complex accounting.

The depth of reliance on cattle as core to the economy, and hence to the culture, is articulated in Seaford's *Money and the Early Greek Mind* and McInerney's *The Cattle of the Sun - cows and culture in the world of the ancient Greeks*.

The modern stockyards and stock-market carry this past into the present. Economics relies heavily on markets in countable units: grain most obviously, can be divided, weighed, stored. Most consumer products however cannot.

The word economy, crucial here, is well known as $eco = household + nomos = law$ - at the time of Aristotle's and Xenophon's books with that title, meaning management. Eco-nomy was thus estate management. Society was organized by estates, more like Texas cattle ranches. Have to be careful here. We have two words, **economy**, the complex thing, and **economics**, the science of that thing. I dealt with economy already in the introduction. What is key is that it contains equal distribution early. The word nomia, which then evolves to management from about the 7th to the fifth century. (Nomos). As usual the shift is from value rich to more value neutral (the word management is not entirely neutral as it implies organization and hierarchy and an implicit stated goal.) A law isn't necessary if there is no reason for it. The use of nomia

as equal distribution thus implies that the tendency toward unequal distribution existed (no surprise). Economics, the study of economy, doesn't appear until the 19th century, introduced by William Jevons to avoid the political in "politics economy." as economics was become the science of wealth accrual for those who already had some rather than the policy of wealth for all (Adam Smith)

Personal property is fascinating. The modern tendency is to read these as constants of society and all civilizations. Hardly so. Need to take them one by one Personal. person (n.) from the online etymological dictionary.early

13c., from Old French persone "human being, anyone, person" (12c., Modern French personne) and directly from Latin persona "human being, person, personage; a part in a drama, assumed character," originally "a mask, a false face," such as those of wood or clay worn by the actors in later Roman theater. OED offers the general 19c. explanation of persona as "related to" Latin personare "to sound through" (i.e. the mask as something spoken through and perhaps amplifying the voice), "but the long o makes a difficulty" Klein and Barnhart say it is possibly borrowed from Etruscan phersu "mask." Klein goes on to say this is ultimately of Greek origin and compares Persephone.

In legal use, "corporate body or corporation having legal rights," 15c., short for person aggregate (c. 1400), person corporate (mid-15c.). The use of -person to replace -man in compounds and avoid alleged sexist connotations is recorded by 1971 (in chairperson). In person "by bodily presence" is from 1560s.

Person-to-person first recorded 1919, originally of telephone calls.

The concept of person is highly dynamic and we need to rethink its deepest meanings. GardenWorld needs to be aligned with the way humans really are. The very idea that it is a mask means it hides some reality. Rilke in the Notebooks wrote that he came into a square late at night and startled a girl sitting by a fountain, who raised her head to see who was coming, "the first time I ever saw a human face without a mask,"

In GardenWorld people will still wear masks. David Brooks, himself struggling

with what to believe, wrote an op ed about person.. Several key passages:

Moreover, most actual human beings are filled with ambivalences. Most political activists I know love parts of their party and despise parts of their party. A whole lifetime of experience, joy and pain goes into that complexity, and it insults their lives to try to reduce them to a label that ignores that... Yet our culture does a pretty good job of ignoring the uniqueness and depth of each person. Pollsters see in terms of broad demographic groups. Big data counts people as if it were counting apples. At the extreme, evolutionary psychology reduces people to biological drives, capitalism reduces people to economic self-interest, modern Marxism to their class position and multiculturalism to their racial one. Consumerism treats people as mere selves — as shallow creatures concerned merely with the experience of pleasure and the acquisition of stuff..... (He quotes) Back in 1968, Karol Wojtyla wrote, "The evil of our times consists in the first place in a kind of degradation, indeed in a pulverization, of the fundamental uniqueness of each human person."The crucial questions in life are not "what" questions — what do I do? They are "who" questions — who do I follow, who do I serve, who do I love?... Margarita Mooney of Princeton Theological Seminary has written that personalism is a middle way between authoritarian collectivism and radical individualism. The former subsumes the individual within the collective. The latter uses the group to serve the interests of the self. Personalism demands that we change the way we structure our institutions. A company that treats people as units to simply maximize shareholder return is showing contempt for its own workers. Schools that treat students as brains on a stick are not

preparing them to lead whole lives.

The big point is that today's social fragmentation didn't spring from shallow roots. It sprang from world-views that amputated people from their own depths and divided them into simplistic, flattened identities. That has to change. As Charles Péguy said, "The revolution is moral or not at all."

Sorry for the long quote but it makes the point that there is broad consideration of these issues of person, personality, human development, in society.

Property. What is proper to show a man's rank in society. We still use this: "are you dressed properly for the party?" "That is not appropriate!" "That is not a proper way to eat". Property then was a sign in society of who you were. Most societies have rules more or less explicit, about who can wear what and when. The penalty for wearing the wrong hat, cloak or sword could be death in some societies. Moving from social sign to property as a thing that could be sold - placed in a market - took a centuries.

An English sea captain arrives in Boston in the 1600's and a dinner is arranged with a group of natives. The story from Hyde *The Gift*.

At one point the chief brings out a peace pipe and, after passed around, says to the captain, "This is for you".

After elaborate thank-yous and goodbyes the captain takes the pipe back to London where it goes into a museum. A few years later he is back in Boston and the dinner party recreated. At a late point in the dinner someone whispers to the Captain, "Now would be a good time to bring out the pipe!" For the natives the value of the pipe is in its journey, for the english in its possession, cutting off further episodes the communal story of the pipe.

John Locke, whose tortured logic has created our own legal regime around property, in the early 1600's proposed, in justifying private property, that people wondered around in nature as isolated individuals and then acted to possess something by using and or improving it and this made it theirs. It is important to

understand that in early times there were no “individuals wandering around.” Locke makes the qualification use so long as it doesn’t interfere with someone else’s. Impossible in a crowded society. Locke was legitimating property as owned by aristocrats, not by the kind. Ordinary people were no considered. The idea of private property takes us into the important discussions around community and individual. The original Latin meant “remove from the public”. (From Latin *prīvātus* (“bereaved; set apart from”), perfect passive participle of *prīvō* (“I bereave, deprive”), from *prīvus* (“single, peculiar”). That is, death from the group. What is private is a death and the state bereaved. Long way to the modern meaning. From the Online Etymological Dictionary{ 1590s, “private citizen,” short for private person “individual not involved in government” (early 15c.), or from Latin *privatus* “man in private life,” noun use of the adjective; 1781 in the military sense, short for Private soldier” one below the rank of a noncommissioned officer” (1570s), from private (adj.).private (adj.) late 14c., “pertaining or belonging to oneself, not shared, individual; not open to the public;” of a religious rule, “not shared by Christians generally, distinctive; from Latin *privatus* “set apart, belonging to oneself (not to the state), peculiar, personal,” used in contrast to *publicus*, *communis*; past participle of *privare* “to separate, deprive,” from *privus* “one’s own, individual,” from PIE **prei-wo-*, from PIE **prai-*, 13 **prei-*, from root **per-* (1) “forward, through” (see *per*).

So private property is a social sign removed from the public (losing its status as a sign) and becoming a dead thing, no life in the community. This whole piece of thinking

is core to the legal issues faced by GardenWorld which will rebalance community and individual, not as opposites but together. Strong individuals require strong communities, strong communities require strong individuals. Families and schools are the intermediaries.

Money often treated as obscure in origin comes from the name of the treasury below the Parthenon in Athens, the Moneda, the building where deposited tax collections were stored as grain or meal. The slow recognition that a piece of paper with marks on say the number of urns of olive oil, or bags of grain could itself be traded, took a long time. Goetzmann's Money Changes Everything has lots of very important history.

Since ideology around individuals and **community** is so important, we need some examination of that history.

early 15c., "one and indivisible, inseparable" (with reference to the Trinity), from Medieval Latin individualis, from Latin individuus "indivisible," from in- "not, opposite of" (see in- (1)) + dividius "divisible," from dividere "divide" (see divide (v)).

Original sense now obsolete; the word was not common before c. 1600 and the 15c. example might be an outlier. Sense of "single, separate, of but one person or thing" is from 1610s; meaning "intended for one person" is from 1889.

individual (n.)

"single object or thing," c. 1600, from individual (adj.). Meaning "a single human being" (as opposed to a group, etc.) is from 1640s. Colloquial sense of "person" is attested from 1742. Latin individuum as a noun meant "an atom, indivisible particle," and in Middle English individuum was used in sense of "individual member of a species" (early 15c.).

1640's!

So, a late comer, and causing lot of contemporary conflict. Margaret Thatcher remember said there is no community, only individuals. Individuals are treated as the source of the productive society, forgetting that knowledge and action are group, not

individual achievements. Newton said "If I appear to have achieved anything it is because I stood on the shoulders of giants." Robert Merton has a very intriguing book with that title about Newton's sources.

A few other key words, just a hint..

Philosophy, love of wisdom unfortunately reduced to epistemology and logic.

Politics the study of the town, called polis. Theory of organizational management of serious conflicts in the community, the polis.

Feudalism. From feudal, meaning farm. from Medieval Latin feudalis, from feudum "feudal estate, land granted to be held as a benefice," of Germanic origin (cognates: Gothic faihu "property," Old High German fihu "cattle;" see fee). Feudal

Again note the importance of cattle in early economies as land, property, cattle, capital all interact. Modern society and potentially GardenWorld can easily be seen as mere modifications of these ancient dynamics

The most widely held theory is put forth by Marc Bloch.[14][15][16] Bloch said it is related to the

Frankish term *fehu-ôd, in which *fehu means "cattle" and -ôd means "goods", implying "a moveable object of value." [15][16] When land replaced currency as the primary store of value (Italics mine. DC., the Germanic word *fehu-ôd replaced the Latin word beneficium.[15][16] But the word goes on to morph into federal, as in the US federal system, federation.

I hope these give a feel for the change from hunter foragers to agricultural and the origin of key modern concepts that just may suggest new ways of thinking about our time and it's possible futures. Many more interesting word histories are given on my webpage at

<https://carmichaelconversation.com/key-words/>

Shards

These sections are important pieces that have not yet fit in. Shards are the broken pieces of ancient pottery found in archeological digs.

Computing

It starts as digital, the hand, not the heart. The word digit is for counting and obviously comes from fingers. System base ten. The point is that computing is an extension of some aspects of the body but not others. Fingers are relatively differentiated. The passions are more fluid. The digital morphed into the elegance of open hand, closed hand, binary. Yes, no. Here, not here. The pathology of the Western mind can be seen in its tendency to impose this yes no on everything.

Big data is good at finding the things many of us have in common, even if only slightly. But is terrible at giving any weight to something that pertains to only one or a few people.

Big data, by being analytic about what you do - channels watched, articles read, movies. Can predict which of the twenty democratic candidates most represents your view, preferences, interests (these are not the same), better than you can. So, says the smart new hire, lets propose that google votes for you. It will be more accurate.

Computing as basis for the internet will be very important for Gardenworld. As localization develops to further food and people, learning across communities will be important for sharing ideas and outcomes. . It can also be used to coordinate repression. There lies the danger.

Social character

A key issue for society is how it creates the kind of people that society needs.

Erich From built a theory of social character - shared character. Our biological capacity to live in society must meet the needs of taking in, , staying clean,

reproducing. But the way these are done is cultural. Getting up in the morning and getting ready (I need my coffee to function), working eight hours a day, “spending” time spending what we earned, buying from those to whom we gave out work - is a hard to achieve, and obviously problematical, outcome of socialization within a capitalist society where some own and others work for them.

Gardenworld requires a high degree of interdependence where hoarding and cheating are going to be punished by the group. Instead of being hidden in an office, what people do will be more visible.



Our current character has been formed in a society of privilege or family breaking poverty, with no church for solace. Those who more or less run the country and its institution, say the top 30%, are self satisfied and expect to remain so. Wishes are commands to the system, and the system encourages new wishes. If many of see a way to buy food or a house cheaper, we will take it, not looking at the system of consequences.

It is much more in our character to ask “is this cheap?” rather than to ask “is this fair to all?”

We have developed a go-along character rather than a skeptical reflective curious character. It might suggest that we will have a hard time adjusting to the character needs for the coming decade or two. Gardenworld supports lose but nurturing family community and self. Community and appreciation of life world, beauty. Along with appreciation comes service, expanding the possibilities for others - all others.

Chris Alexander

Chomsky and a few others.

Common sense

Cultures in Common, the commons, what's wrong with Hardin..
Eleanor Ostrom.

Freedom, need for philosophy here.

Darwin and evolution.

He is terrific but the use is conservative. Evolution means pre figured. People imagine that evolution means convergence toward something. Just the opposite - genetic modifications create always many new possibilities.

In physics, if we drop the glass we hold, physics tells us much about that will happen. "Evolution" does not tell us about what the next species, the next evolution, will be. In this way it is a fundamentally different kind of theory. This

difference is ignored in economics and other social sciences and in discussions of scientific method and goals.

Natural law

A long discussion in philosophy has been about law - is it in us to be good? The other side of this discussion has been to say, no, the good that is in us is because we are socialized to be this way.

It is another false opposition between two positions that are both correct. We have deep tendencies, for survival, for - by the time evolution gets us to be mammals - caring for young and often, as many animals show, for mates, and in herding animals protecting the flock against predators, horns outward from the circle toward the lions. Culture elaborates on these tendencies, creating new arrangements. The greek economy contain *nomos* which, before it became a general abstract term meaning *law* originally in pre classical Greek mean *equal distribution*³⁵. A concept is not developed unless it does some needed work. In this case equal distribution is affirmed probably in the face of a tendency to unequal distribution. We should do as well now.

Where does a preference for equal distribution come from? Hunter gatherers already had it, and settlement nudged toward fences and mine-thine, so the law was used to try to keep the original idea of community. This was consistent with the idea of the sacrifice, maintaining the fact of the kill with a ritualized procedure of division among the community. Plato's view was that law was built in, like geometry. Geometry just can't be wrong, nor can "the good." From this view natural law is what is given. Piaget's more modern view is that the child can see the world from the perspective of another. (The child is asked how the table looks from the point of view of a doll at the other end). Piaget said this

³⁵ see the earlier discussion in chapter 1.

ability to take the view of the other plus compassion is the strata on which an ethical system emerges. Key here is that the result - lawful a feeling for the law - is an evolution, a development, of the mind in relation to its experience of the world. This is a more fragile view and require renewal and defending.

Science

Air earth fire and water - sensual, touchable, tastable even. Science has replaced these with atoms, fields, forces: vast numbers of invisible things. Science tells us more about the end of the world as the sun dies 5 billion years from now than it does about the poetry of sun rising tomorrow. Beware of science. It serves power and war more than parents and children.

At Caltech I hung around Feynman who saw science as an aid to expanding experience of the world. He was not interested in the mere representation of data, but of the sensuous feeling from watching in the imagination the contact of electrons with photons.

Later I spent a lot of time with Jerry Letvin at MIT, and he taught us that the red tinted oil on the cones of some field birds could not be understood by centrifuging the oil for a spectrum analysis, but by going into the field with a piece of red cellphone and seeing revealed grasshoppers. He taught us that to understand the actions of an amoeba under a microscope as we attacked it with a probe we needed all the understanding of human drama: fear, counter-attack, puzzlement, to understand what the amoeba was doing.

When Lee and Yang won the Nobel for experiments at Brookhaven costing a few million, the lab I was an assistant in created the experiment for the afternoon physics colloquium for a few hundred, including shop time.

Since then I have wondered how much of our understanding of the world could be inference rather than experiment. Light goes through glass, what does that tell us? Many animals survive and many die young. What does this tell us? The sky is blue in the day and black at night. Why is the sky blue but the sunset is orange and yellow?

I wold like to take this kind of thinking into archeology, anthropology and

psychoanalysis. I sometimes say to economists. Can you imagine a time when economics regards novel as very necessary and legitimate empirical evidence about humans? Thought, imagination and experience.

Word ambiguities.

Words have been given a lot of attention because they point to what was, is, and what could be.

Earth and humans are clearly separate but this is not true for humans and nature. I often use the phrase integrating humans and nature, I am mostly aware of the awkwardness of this language.

Edgy food.

wetlands long before planting and sedentary klives. Against the grain.

Edgy sex.

A mixture of love and lust, and leading to more births, which are wonderful yet more than we can handle. What to do?

Repression probably won't work,

Shifting to organized lust probably won't work

The reality is it will always be a problem.

Gender and social..

The role of clothes. We think we see each other, in fact 95% is covered up like

the body of a car hiding the engine.

Innovation

Innovations in nature are tried out in complex real environments, human innovation tend to seek out a path of payoff without testing in more than one or two environments. Making, cars, planes, ..

Innovations are proposed, funded, implemented, but never tested against the needs of society.

Random Human

Human cultural evolution has been one long string of examples of the law of unexpected consequences. We invent agriculture, which leads to food surpluses, which leads to job specialization, and before you know it, we've invented socioeconomic status, the most crushing way of subordinating the low ranking that primates have ever seen. We invent sedentary dwelling and permanent structures, and soon we're dealing with the public health consequences of something no self-respecting primate would ever do—living in high-density populations in close proximity to its feces. We domesticate wolves into being companions, and soon we're dressing up our dogs in Halloween costumes and buying Pet Rocks. The emergence of modern humans has generated some surprising twists and turns.

Paul Ehrlich, *Jaws*, from the introduction by Sapolsky.