# Designing the Earth Anew Together

For us to live in a world suitable to us all, we first have to know what such a world should look like, so we can together strive for it!

by Mr. Jan Hearthstone

for my children

Spring 2013

ISBN-13: 9781620304495

ISBN-10: 162030449X

Printed at The Book Patch

(thebookpatch.com)

Order at

http://tinyurl.com/ModelEarth-Org

#### Front cover image:

http://astrosociety.org/edu/publications/tnl/56/images/earth.jpg

#### Photo Credit:

Image produced by F. Hasler, M. Jentoft-Nilsen, H. Pierce, K. Palaniappan, and M. Manyin. NASA Goddard Lab for Atmospheres - Data from National Oceanic and Atmospheric Administration--NOAA.

#### back cover image:

http://www.tara.meditationinsantabarbara.org/wp-content/uploads/2012/06/Conch.jpg

#### **Table of Contents:**

Universal Platform for Developing Sustainable Earth Vision/Model Cooperatively	/1
Ecologically and Socially Sustainable Education:Creating a Sustainable World .	7
The Need for Designing the Future Collaboratively	17
Donella Meadows' "Visioning": Global Citizens Designing a Sustainable World Together	21
Home: The Very "Leverage Point"	32
Mahayana: Philosophy for Sustainability	35
O Bodhisattvas!	37
Why Prayers, Meditations, Wishes, and Any Such Don't Help to Establish a Lasting Peace in the World	40
Designing a Lasting Peace Together	41
Defining "Sustainability" by Illustrating the Concept	43
Preventing a Ton of Cure: Disaster Preparedness	44
To Those Following in the Footsteps of Robert Jungk, R. Buckminster Fuller, Donella H. Meadows, and Others	46
How I Arrived at the Concept of Designing the Future Collectively	48
Credit and Dedication	54
Bibliography	55

#### The Necessary Qualities of Sustainable Earth Vision.

A sustainable Earth vision has to be universal --it has to optimally accommodate everyone's personal vision of what a sustainable life on Earth should be like.

A sustainable Earth vision cannot be proscriptive; It has to be descriptive; it has to show why things in the vision are presented the way they are--how they organically relate to all other things in the vision sustainably.

By showing why the components of the vision are supposed to be the way they are, a sustainable Earth vision would educate . This education would enable the participants of the vision creation to continually improve on the vision while actively implementing it.

Furthermore - by actively participating at realizing the vision people would learn--"hands on", "on the job". This education would would become a second nature to humans; always showing why it is necessary to optimally accommodate all others within the vision along with one's own self.

Maintaining the vision to be harmonious, while continuously fine-tuning it, will become a worthy life's purpose. It would become the most significant cultural trait, and thus it would be preserved in perpetuity.

# Universal Platform for Developing Sustainable Earth Vision /Model Cooperatively: Global Citizens Envisioning the Future Together.

A sustainable world can never be fully realized until it is widely envisioned. The vision must be built up by many people before it is complete and compelling. (Meadows 2004, p273)

You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete. (attributed to Buckminster Fuller, though I have not been able, so far, to find the source)

One can--and eventually must--decide that a fate is an inadequate substitute for a future. (Umair Haque http://www.twylah.com/umairh/tweets/)

We have to know what kind of a world we want to live in, if the one that we live in now we don't like.

The challenge is to come up with an idea of a world that would optimally suit us all; an ideal that all of us on Earth could focus on and strive for--a harmonious, truly sustainable co-existence of us all on Earth.

It has to be an ideal accessible, discussable, and amendable by every- and anybody at all times--the germ of a true global (and, of course local at the same time) governance--a government where the governing would be done by the means of a "vision" (note 1)/model in common worked on, held and striven for by all continuously.

The valid competition would be to improve on the ideal (vision/model), and to find better ways of achieving this ideal, instead of competing for advantage over others to the detriment of the whole, as has the prevalent practice been till now.

There would, eventually, cease any need for "leaders" and "followers"-

everyone would have the potential to take a part in embodying their own ideas (in concert with the wishes for an ideal existence of all others) in the continuously being shaped collective vision/model.

The resulting collective vision/model would not be static--an ideal could not remain an ideal without the possibility of improving on it perpetually. It would be a space to resolve any differences, controversies, conflicts, and any complaints that there ever might arise among us; it would become a superior way of a collective self-rule.

What is being referred to in the quote at the beginning of the article--the "envisioning" and "vision" of the ideal to be realized--are indeed essential for achieving that which is being desired:

"... Vision without action is useless. But action without vision is directionless and feeble. Vision is absolutely necessary to guide and motivate. ..." (Meadows 2004, p272).

The vision, indeed, " ... must be built up by many people before it is complete and compelling. ..." (Meadows 2004, p273)--But how to do this? How to allow a vast number of people (potentially all who live on Earth, and have a stake in the future of this world, each perhaps with their own vision) to co-operate on creating one vision of one Earth's future?

This mind staggering task might stop many from even ever contemplating such an undertaking--an assumption validated by the lack of any progress in presenting a platform on which to unite all of the possible visions of a sustainable Earth ever since Donella Meadows' passing away (2001).

Despite Donella Meadows' "visioning"/"envisioning" being taught at many places in the world, the one thing needed for starting to work on a to all acceptable future--a place where all could relate their ideas with the ideas of

everyone else--is missing. Where is it that anyone could compare their vision with the visions of others? On a local level it might be possible (even though it is not done properly anywhere, to my knowledge--correct me, please, if you know otherwise), but then--how about coordinating all the local visions with the vision for the whole world?

There could, possibly, be a way that would allow to accommodate all of our personally and locally held visions/models on a global level, but, only as long as we can all agree that we all want to live truly and provably sustainably.

Consider this: Imagine an Earth where humans exist in zero population growth communities situated amidst wild, by humans unregulated nature, where all the other species that we share this planet with live untroubled by humans.

Each of the communities would consist of any and all possible forms (no matter how simple or complex ) of sustainability--from hunter-gatherer way of life to anything more complex, with the most complex forms at the center--as long as those communities would be transparently and demonstrably sustainable, so that their way of living would not adversely affect the existence of other human communities and other life on Earth.

In order to establish the basic population density level on Earth, it should be based on the least complex ecologically and socially sustainable life-style, so that should any forms of a sustainable life-style existing on Earth fail for any reason, hunter-gatherer life-style is the least complex one at which humanity could exist comfortably, providing there is an ample territory to do it on with sufficient safety margin that would allow for any, even now unforeseeable exigencies--this in order to establish the basic human population level. (N.B.--I am not advocating that all humans become hunters-gatherers at first and then develop sustainably, as opposed to the way that we developed

actually.) In this way there would be no need for having to accommodate all other species sharing the Earth with us in any special way--those would always live in balance with humans who would not be able to inflict much damage on them due to their small number.

Any communities at a level of sustainability more complex than that of hunter/gatherers within this universal vision (i.e.--withing a model) would be "evolved"--not driven by external circumstances, instead pulled towards the vision of the ideal--from the least complex level of sustainability possible, step by step, demonstrating that each more complex level of sustainability would indeed be sustainable ecologically and socially in every aspect, all communities together making sure not to exceed the total population level of humans on Earth that would always remain fixed at what it would be if all humans lived as hunter/gatherers--this as a safety measure in case that people, if not satisfied with higher complexity level of sustainability, would always have the opportunity to fall back to living at less complex levels of sustainability. More on this in "Defining 'Sustainability' by Illustrating the Concept Using Modeling (instead of by merely describing it) (p43)".

I imagine that people (both--in constructing the vision/model, and in the sustainable world that would be the vision realized) would be able to "vote with their feet"--at any time when they would feel that they would like to live, either at a different place, or at a different level of sustainability, they would just regroup/re-locate. In this way social sustainability would be ensured--no one would be forced to stay at any place, or at any level of complexity of sustainability.

Again--it must not be understood that I advocate that all the billions of people on Earth that there are now should become hunter-gatherers and then tried to work their way to the level of complexity of sustainability that they would like to live at in real life! All this above would be happening in models (of any

appropriate kind, e. g. "gedanken experiments, etc.) for the purposes of getting a practicable "vision"/model together.

The what-so-ever model(s)/vision(s) that would be arrived at should not be anything less than a portrayal of an as perfect as possible situation. (However--"visions" should never be considered as being static; they would evolve along with the evolution of thoughts on the subject.) The model(s) arrived at should not be impeded by what might be considered possible, or impossible, in our current, very imperfect world that we are forced to live in now:

Visioning means imagining, at first generally and then with increasing specificity, what you really want. That is, what you really want, not what someone has taught you to want, and not what you have learned to be willing to settle for. Visioning means taking off the constraints of "feasibility," of disbelief and past disappointments, and letting your mind dwell upon its most noble, uplifting, treasured dreams. (Meadows 2004, p272)

The ideal should not be limited by what might be thought of as being "possible", or "impossible" at any given time!:

"... In order to conceive of what you truly want to create, you must separate what you want from what you think is possible. ..." (Fritz 1984, p71)

The ways of achieving the ideal depicted in the "visions"/"universal models" should start suggesting themselves as soon as the model would appear to be practicable enough.

A great number of variations on this "vision"/model suggest themselves--the result would still be a humanity that would harmoniously exist with itself and all other life on Earth, providing that humanity would adhere strictly to the "zero population growth" policy, and to living demonstrably and transparently sustainably.

A way of providing a satisfactory definition of "sustainable"/"sustainably" would be to demonstrate transparently in models (of any appropriate kind) that any situation would, or would not, indeed be "sustainable", that at no point there is anything that would be deleterious to the comfort of other humans or other species.

There is a need for such a model of what the Earth should ideally look like that would be freely accessible by anyone on Earth, so that everyone can, at any point, see what progress is being made towards the ideal at any time, so that there is a reference available for any undertaking that might concern the welfare of anyone on the planet.

"Model" - definitions:

"... 10. a simplified representation of a system or phenomenon, as in the sciences or economics, with any hypotheses required to describe the system or explain the phenomenon, often mathematically."

http://dictionary.reference.com/browse/model

"A representation of a system that allows for investigation of the properties of the system and, in some cases, prediction of future outcomes. Models are often used in quantitative analysis and technical analysis, and sometimes also used in fundamental analysis."

www.investorwords.com/5662/model.html

#### Note 1:

The "vision" in the title harks back to Donella Meadows'
"visioning"/"envisioning", which owes its being to Robert Fritz's "Technologies
For Creating" (TFC). What "visioning"/"envisioning" is for Donella Meadows,
Robert Fritz calls a "choice". Fritz' *The Path of Least Resistance* (Fritz 1984)
is a necessary reading for anyone who wants to understand what Donella

Meadows' "visioning"/"envisioning" is. I think that "model" could be a more fortuitous choice of a term in the context of this writing.

Donella Meadows' "Envisioning a Sustainable World", in which she explains what "visioning"/"envisioning" is, is online: www.sustainer.org/pubs/Envisioning.DMeadows.pdf and so is what I wrote that touches on what her "visioning"/"envisioning" concept is: "Donella Meadows' 'Visioning': Global Citizens Designing a Sustainable World Together" (p21)

In *Limits to Growth: The 30-Year Update* the authors write about the "sustainable revolution", the next biggest social change coming. (Meadows, et al. 2004, chapter 8, p273)

The "Universal Platform for Developing Sustainable Earth Vision/Model" (p1) is a basis for a complete, all-encompassing vision of a sustainable Earth; Complete, because any sustainable life-style can be accommodated within the model, as long as that "life-style" indeed is provably sustainable. What is needed now is to make this all-encompassing vision/model of a sustainable Earth "compelling".

(The following paper contains author's definition of Mahayana that is almost verbatim of the article "Mahayana: Philosophy for Sustainability"--p34--, because it is a part of this paper as it stands alone.)

# **Ecologically and Socially Sustainable Education:** Creating a Sustainable World.

(a paper)

For downloads - published at

http://ssrn.com/author=1845981

and at

http://www.academia.edu/1256172/

Author: Mr. Jan Hearthstone

#### Abstract.

The purpose of ecologically and socially sustainable education is to teach the skills and to impart knowledge necessary for the establishment and perpetuation of ecologically and socially sustainable society. The first step is to determine what an "ecologically and socially sustainable society" is. This is achieved by reconciling and unifying of all individual ideas that there ever might exist of what should constitute an "ecologically and socially sustainable society" into a unified model--a model acceptable to all because it is based on all knowledge of Earth and societal processes pertinent to the subject, and because everyone can participate in the modeling process. This unification in a model is necessary in order to avoid costly resolving ("costly" in terms of time, energy, resources, and, not infrequently, lives) of differences among those ideas in real life. This ongoing process of "reconciling and unifying of all individual ideas" into a unified model in itself would be the "ecologically and socially sustainable education" to the participants, because this unification process of all the diverse ideas would show what ideas would be more sustainable than others (or not), and why this should be so, and in order to design a world that they would like to live in, the participants would learn everything necessary for this while participating in the designing

process. They would have an active interest in doing so--they would be designing a life for themselves that they would like to have. This, in itself, would constitute the best possible form of a government.

#### Keywords:

"ecologically and socially sustainable education", "ecological and social sustainability", sustainable, sustainability, education, "*The Path of Least Resistance*", "Robert Fritz", "Mahayana philosophy", Mahayana, philosophy

#### Introduction:

It could be argued that for humans to live sustainably is the optimal way to exist, a way that would generate the least amount of suffering for humans and many other beings who share this world with them. The principal idea expressed in this paper--the purposeful and conscious designing of our collective sustainable future collaboratively, with the participation of all who have an interest in achieving a satisfactory future--is based on the philosophy of Mahayana (p35 and/or at http://www.academia.edu/206337 /Mahayana\_Philosophy\_for\_Sustainability) and on the practical approach to creating of desired results as it is formulated in *The Path of Least Resistance by Robert Fritz* (Fritz 1984).

At present there are many people who know what they do not want in their lives, but a very few who have formed a definite image of what their ideal life should be. There are much fewer people who would like to have their future to be sustainable, and there exist a myriad definitions of "sustainability", many of which are not even compatible with each other. A lot of time, resources, and energy are being wasted on trying to reconcile the differences among those definitions in real time and space. All this waste could be avoided by reconciling these differences in a model, i. e. by deciding the viability of any idea by modeling in virtuality "concrete" applications of any ideas in consideration pertaining to our future.

Even people who do not "believe" in sustainability could use the modeling process to see how their ideas of what an ideal world would behave in a model; I contend that by using the modeling process continually, even using input of people who do not "believe" in sustainability, eventually the result would have to, inevitably, be a portrayal of a sustainable world, because no other way other than sustainable could ever be as justifiable, nor any other results could ever be as elegant and parsimonious as sustainable ones.

The modeling of the ideal, would never be in any way influenced by any ideologies, creeds, or personalities of the inputters. Only the realization that we all have to share the Earth together with as little conflict as possible would matter. Only the relevance of ideas to creating of the ideal would matter.

The modeling of an ideal future could be used even in small scale situations in conflict resolutions and also in deciding the future of smaller social units.

#### What is "ecologically and socially sustainable education"?

Ecologically and socially sustainable education helps to establish and maintain an ecologically and socially sustainable society. It is a part of designing of an ecologically and socially sustainable world. Participants learn what they have to learn about what "ecological and social sustainability" is, while designing their own ideal lives themselves as they go--learning what they need to learn.

#### What is an "ecological and social sustainability"?

There are many definitions of what constitutes "sustainability", let alone "ecological and social sustainability". Some are less abstruse than others, but there is not a single one definition of "sustainability" that would satisfy everybody.

Therefore, in order to be able to define "ecological and social sustainability", the best definition of the term would be actually showing in a model what an ideal sustainable state of any geopolitical entity ought to be by collectively inputting individual definitions into models and reconciling the differences among them by representing "concrete" portrayals of the optimal sustainable states of those entities. (All the above is further elaborated upon bellow).

The need for a model that would show what an "ecologically and socially sustainable" world should look like. The unification of all ideas about what our collective future should be like in a model is necessary in order to avoid costly resolving of differences (costly in terms of time, energy, resources, and--not infrequently--lives) among those ideas in real life.

It is necessary to have a good definition of "sustainability"/"sustainable" for working purposes. Only by modeling of this definition we can get definitions of "sustainable" that actually would be "visible"--made "visible"--by "concrete" applications of what might be considered "sustainable" in a model.

To reconcile all the various definitions of "ecological and social sustainability" (and to unify all ideas about what our collective future should be like generally) I propose that all of these are used to construct a model that would portray what an ecologically and socially sustainable society (henceforth "sustainable" in this paper, for brevity sake), or any social entity of any size-from a local community to the whole Earth encompassing humanity. In such a model it would be possible to "see" what the each definition of "sustainability" would look like when translated from the abstract to a "visible" representation of "sustainability", if in virtuality only. In this way each of the definitions' viability could be "seen" and evaluated against all other definitions and against all knowledge that is important in deciding what is "sustainable" and what is not so (e. g.--availability and distribution of resources, form of the society, and such).

It is important to stress that this modeling should not be about "problem solving"! According to Robert Fritz in *The Path of Least Resistance* (Fritz 1984) the process of creating the results that we want to have in our lives cannot depend on "problem solving", because we never, really, run out of problems ever, and even, very unlikely, when we solve all of our problems, we still might not be even close to having what we really want to have, especially, if we don't know what that might be. The modeling has to focus on the results that we do want to have in our common reality.

The resultant emerging portrayal of an ideal state of things would not depend on the personalities of people inputting the model--only ideas would compete with each other. The process would not be hampered by the prestige, or the lack thereof, of people inputting the modeling process. Nor could anyone personally profit from taking a part in the process. The "profit" would lie in making it possible for all to design and to strive for the optimal home ever for all involved possibly obtainable, with no one excluded from the process of doing so.

In essence the shaping of human society on any level, from a local community government to global concerns, driven by the desire to approach the ideal, would supersede, eventually, any form of government in existence currently, because once a justified, unified objective would be identified, the actions to achieve it would always be defensible, and because no one ever would be excluded from the political action.

There is a great difference between the way the society would be governed by using the modeling process and the way politics is being conducted currently. Today our future is being shaped by a very small portion of humanity, with an exclusion of a huge proportion of people who thus cannot influence their future significantly. Much discontent generated in this way will create problems in the future, problems that will be resolved to the satisfaction of only a few again—the number of problems will be increasing till

they will be "solved", for a while, by some major societal catastrophe.

In contrast, no one ever could be excluded from modeling the ideal state of the world--all who would care to live in a better world would always be able to improve on the ideal. No one's effort in modeling of the ideal and in contributing to achieving of the ideal would be wasted--actions small and actions big will all flow coherently into the realization of the ideal--both in the model and in reality. Differences that there are among people and cause so much unhappiness in real life could be dealt with, could be resolved in the model preemptively.

Sustainable education springs from the need of bridging the current reality with the desired state of affairs.

With a visible, collaboratively being created, and generally upon agreed model of what our ideal common reality should actually be, it would always be possible to see what the discrepancy between what is desired and what actually exists currently, in relation to the ideal, is. This discrepancy between the desired goal and what there is in reality (in respects to the desired goal) alone would be the driving force of sustainable education (I am alluding to Fritz's description in *The Path of Least Resistance* --Fritz 1984--of how "structural tension" between the desired objective and its "current reality" drives the creation of desired results).

Sustainable education would always makes sense, because at each point the whichever particular knowledge that is being acquired is clearly "seen" (by comparing the modeled desired reality with the current reality) as being necessary to know in order to achieve that which is desired. The start of the modeling process itself would be the start of sustainable education.

#### Conclusion.

Most problems that humanity experiences are human made, and this fact implies a hope--it might well be within human powers to effect the healing of our world.

The "old" way of doing things will never do; obviously the "old" way got us to where we are now. We cannot look back trying to find solutions to our present problems, because any "solutions" from the past helped to get us exactly to where we are now. Any solutions based on humanity's experience from the past that have been tried have been proven ineffective, so far; ineffective in trying to deal with issues that really matter--fulfilling the basic life on Earth needs satisfactorily--QED.

We have to look, as if, into the future for solutions, more precisely--we have to design our future to our collective satisfaction, and then we can work to make this designed future our reality. It is very important to know what it actually is that we desire to have. Alone the existence of a constantly updated, evolving model of an ideal state of the Earth would greatly improve even our current political process by "seeing" to what degree each political decision would, or would not, help to achieve the ideal state.

#### References:

#### Mahayana:

"Mahayana and Ecological and Social Sustainability" (p35).

**(N. B.** The following reflects author's own personal understanding of the terms "Mahayana" and "Bodhisattva").

Mahayana is a view that acknowledges the interconnectedness of all phenomena across all time and space (no phenomenon is an isolated

"island"), and that any one being's well-being depends on the well-being of every other being across all time and all space.

A Bodhisattva is one who strives to realize the ideal of Mahayana, and regards the well-being of all other beings as important as one's own.

To live ecologically and socially sustainably means to acknowledge the need of all other beings to live well also.

The need for living ecologically and socially sustainably is implicit in Mahayana.

An aspiring Bodhisattva would help all beings to be mentally and physically optimally well, and therefore an aspiring Bodhisattva would promote the way of living ecologically and socially sustainably in all places and in all times.

A traditional Mahayana dedication--affirming, focusing on what the actual ultimate goal of life should be: "May all beings benefit optimally everywhere and always". (A philosophy quite suitable for achieving an ecologically and socially sustainable world.)

Mahayana's noble goal is to cause all beings to become ultimately happy, with no beings left behind in suffering. Thus Mahayana philosophy might be best suitable as an ideology for creating and maintaining of ecologically and socially sustainable society, because Mahayana's concern is the ultimate happiness of all beings, transcending all differences—be those differences in species, ideologies, creeds, classes, and any such differences—that divide all beings. All beings' welfare is important in Mahayana's view, as it is in true sustainability, where all members of a system are important.

To live ecologically and socially sustainably does not imply a complete

abolition of all beings' suffering which is the goal of Mahayana--that would be impossible to achieve with our mere "earthly" means---but to live sustainably would prevent most of unnecessary suffering from happening, at least.

Fritz, Robert *The Path of Least Resistance*, Salem, MA, DMA, Inc., 1984, ISBN: 0-93064100-0

The Path of Least Resistance by Robert Fritz (Fritz 1984) teaches how to create results that one desires in one's life; it is based on the common sense observation that it is impossible to achieve something that one doesn't know what it actually is. In order to achieve a result one first has to know what it is that one wants to achieve in as small a detail as possible, or, at least, to know what one wants to achieve so well that when one would encounter this goal realized, one would recognize it without a fail. This is very important in achieving sustainability--as it is today, we are professing that sustainability is what we want to achieve, with a little or no consensus among ourselves as to what this "sustainability" should actually be! It is my conviction that it will be impossible for us to ever become sustainable, unless we agree on what "sustainable"/"sustainability" is.

The process is described in *The Path of Least Resistance* (Fritz 1984) as "creating", because it concerns bringing into reality results that might not have existed ever before, bringing into being results as if out of nothing (the foregoing is loosely paraphrased from the book-- *The Path of Least Resistance* by Robert Fritz--Fritz 1984).

### The Need for Designing the Future Collaboratively: To Whom the Future of the Earth Might Concern.

The differences that there exist among all our ideas--ideas of all who share this planet, about what our common existence on this planet should ideally be like-should be resolved by any what-so-ever expedient, appropriate means first: by modeling (computer modeling, or any other kind of modeling) at the global level, round table style discussions at the community level, before those differences resolve in real life, causing real waste of lives, resources, and time in the real world.

Once there would be a clear idea of what we all agree that our common existence in this world should look like, only then it would be possible to achieve this commonly held ideal.

This contrasts with the way in use now when we are mostly trying to improve our existence in this world by forever fixing the infinite problems stemming from our past mistakes that plague us, and usually causing new problems to arise with our fixes--never knowing well what kind of existence we are trying to achieve, and therefore never achieving any kind of existence that would be fully acceptable by anyone.

Why there is a need for designing the ideal Earth Cooperatively:

Normally we sort out the differences that we have about how our collective, social lives should be conducted in real time/space with the familiar results: our collective existence on this planet is becoming worse in many vital aspects.

We have to find a way of effectively resolving our differences before those differences start being sorted out in real life.

It is imperative that we find a way of collectively deciding what kind of a common existence on this planet we all want--we have to have a collectively shared "vision" of what we want the Earth to be.

This "vision" (Meadows 2004), or a "choice" (Fritz 1984) has to be based on what there, in the ideal reality, we would really like to have, without considering whether this would be "realistic", "possible" (Fritz 1984), or any such considerations for the nonce. It has to be ideal; as ideal as possible--to the point that one could not improve on the vision any further, as if.

By vision I mean the inner crystallization of the result that you want to create, so that the result is conceptually specific and tangible in your imagination—so tangible and so specific, in fact, that you would recognize the manifestation of the result if it occurred." (Fritz 1984, p66)

Only after this, once a vision is formulated in as minute detail as possible (Fritz 1984), would the finding of ways of how to achieve this vision start. It would not do to start looking for such ways without the vision not being fully defined, or at least as well defined that we would recognize this vision should we encounter it (Fritz 1984, paraphrased again). It has to be understood very firmly that creating a vision of what one wants (I paraphrase Robert Fritz in his *The Path of Least Resistance*--Fritz 1984--frequently without always acknowledging this) is in no way forecasting the future!--Sometimes this is not clear! It means deciding on a goal to be striven for consciously, not waiting for a vision to descent upon us from above (or wherever from)!

This approach is very different from the hit-or-miss, band-aid superficial approach that we, the humanity, have been using so far in trying to improve our conditions for life on Earth, with the results clearly observable--increasing environmental and societal crises that have no precedents in humankind's existence.

So far we have mostly been responding to problems as they occur, with the

result that we have been able to successfully deal with some of the problems, but, on the whole, although we have achieved a lot of "progress", we usually manage to create even more difficulties in this way due to our not dealing with the root causes of most of our problems.

Most of us know what kind of a world we would like to live in. And to make sure that we end up living in a world that we all would like to live in, we have to reconcile any possible differences that there might be among our individual ideas of what the world that we would like to live in should be like before we start striving for it--just to make sure that we, each of us, are not striving for different objectives! As much as we share the same place, the same planet together, that much we have to share our planning for our common coexistence, our common future together.

We have to collectively create a model of the world that we would like to live in in order to have a "visible", a referable to portrayal of the commonly designed ideal, and while we all cooperate on constructing the model, we all work out all the differences that there might be among our ideas of what our ideal world should look like as we progress on construction of the design.

Of course, constructing the model of an ideal world would never be finished-it would be continually improved upon--but we would start eventually getting the idea of what it is that we are all agreeing on, and we would start working towards the ideal world in real time and space as soon as the design would be clear enough to permit this.

This forever ongoing cooperation of us all on creating of an ideal Earth agreeable to all would be far better than the way of resolving of our differences on occasions, then going our separate ways, and then getting into difficulties with each other again—over and over again, as we are accustomed to doing "normally". While continuously trying to improve the

model of all of us existing together, we would spot potential trouble spots long before those would develop in real life to cause real problems--an improvement over the cycles of violence we adhere to presently! It would be dealing with problems before those occur--not after problems occur!

It is very important that everybody would have an access to the process of creating of the model, so that anybody's ideas of the ideal that might differ from the ideas of others would get sorted out in the model, rather than waiting for those differences to be sorted out in real life, causing real damage!

With the free access of everybody to the modeling/designing of the ideal world everybody would be able to and forced to learn what they would need to learn "on the job"--first by taking a part in designing of the ideal, then by cooperating on actually achieving the ideal in real life--the best possible education for anyone, an education that would relate to our existence on this planet directly.

The ongoing designing of the world would become a permanent feature in everybody's life. It would be a feature that would be consciously encultured into the social/cultural fabric of the society from generation to generation seamlessly, and thus (I hope) would prevent any future possible reversal to our current way of conducting politics. After all--resolving problems, differences, controversies, and complaints before those could engender real life damage would, at all times, be clearly superior to any other ways of living.

It would fundamentally differ from the way "politics" is being done in our world now-a-days in that, that it would not be personalities fighting for partisan and personal power; it would be ideas that would "compete" for inclusion into the ideal world design; only ideas that would best fit in with all other components of the design, and with all that we know about ourselves and about the world would be included in the design, to be replaced when better ideas would be

submitted. It would never be necessary to know who is behind which idea! One's satisfaction would not depend solely on others' approval, but from actually seeing one's good ideas put to good use.

This imagining of what the ideal Earth should be like should start on the global level and from there the design would be putting each local community into the global context, because were it otherwise, in the end, during the process of each community's becoming what the whichever community might consider "ideal" might interfere with what other communities might consider "ideal"-they would be wise to check on the global design just to prevent any future conflicts. In this case the "think globally, act locally" would have its rightful application. In practice this thinking and acting would occur simultaneously.

Please read "Designing a Lasting Peace Together" (p41), where the need for collaboratively designing the future of the world could be seen best.

**N.B.** The concept of designing the future collectively described in these pages owes its existence to Mahayana philosophy and to ideas presented in *The Path of Least Resistance* (Fritz 1984) by Robert Fritz, which I paraphrase and quote from often, not always necessarily acknowledging this.

# Donella Meadows' "Visioning": Global Citizens Designing a Sustainable World Together.

There is a need for expediency--we find ourselves already on the downslope that comes after the set of exponential curves (representing the exploitation of resources, ability of the planet to heal itself, and the growth of population) starts indicating the downward crash-course, according to the *Limits to Growth: The 30-Year Update* (Meadows 2004), the Global Footprint Network (Global Footprint Network 2009), and many other authorities on the subject.

We are increasingly using more of resources than can be supplied by our planet and are overtaxing our planet's self-healing capacities. We are in a state of emergency. The "crash", that is so obviously coming, would be unprecedented in magnitude in human history, if we let it happen. A great many horrible scenarios are presenting themselves, but there are no good scenarios in which the Earth is saved at the end. (I might be wrong, but where are they? I know that there are many good actions undertaken for lessening the burden, but I have to yet see a detailed good scenario, in which we all survive in a better shape than the one we are in now, presented anywhere.)

In our current situation we have many well founded reasons to be alarmed; any reasons to be optimistic about our prospects on this planet are not founded on any rational grounds.

Our situation is not hopeless; all the ills that plague the Earth now are possible to deal with. We have all the knowledge and resources for to deal with each of our exigencies and problems. But it is difficult to deal with all of them at once and also in such a manner that one remedy would not ever undo the effects of any other appropriate remedies. To imagine the combined effect of all the remedies, to see what the whole picture would look like after all of the remedies have run their course, is not practiced to any extend yet.

This is where a great deal of hopelessness, confusion, and cynicism about our collective fate stems from. We have no assurance that our efforts will ever achieve any lasting desirable results (what should "desirable" results look like anyhow?), all we have is a hope that our "stabs" at improvement might somehow (mostly we don't know how) help.

We have to enter the crash zone as a fully sustainable humanity--the sooner we become truly sustainable, the better for us. The longer we continue

applying sporadic, disjointed, ineffectual remedies without any clear idea what it exactly is that we want to achieve by applying those, the less able we will be to deal with what is coming to us. Some humans might survive, but in no shape that we would still recognize as "human" (except, perhaps, anatomically).

It is very important to know what this "fully sustainable humanity" should look like so that we know what it is that we need to do in order to become such a "fully sustainable humanity" that would be able to deal with the coming and already existing exigencies. Without becoming truly sustainable we don't stand a chance. We could never hope to prevent the "crash" and to heal the planet while still continuing our unsavory non-sustainable societal and environmental practices. The authors of *Limits to Growth: The 30-Year Update* (Meadows 2004) think that the next revolution will be the "sustainable revolution", and that it will happen "organically", and that it cannot be planned--a point I, the author of this article, would like to dispute! I think that this "sustainable revolution" has to, indeed, happen organically, but that it has to be very deliberately designed!. We have to know what it is that we want to achieve with our efforts! We have to know what it is that we want to achieve with this "sustainable revolution"!

Otherwise the very needed "sustainable revolution" will not happen at all, although it should already be in a full swing, considering that we, according to the data available from many sources, are already on the downward vital curves slope.

This "sustainable revolution" will happen only if we bring it into being very deliberately, using a concerted effort. The "deadline" in this case cannot kept on being extended indefinitely. There is no more time left to rely on "hit or miss" methods used in real time/space--every step of this revolution has to be "hit or miss" tested in models instead, in order to avoid any waste of time

and energy in real time/space (not to mention loss of many lives--both human and nonhuman!). There is no more time to merely hope that all the well meant good sustainable deeds and good sustainable trends that there are being exercised now will (somehow, but we don't quite know how exactly, or even roughly) result in a sustainable humanity.

Donella Meadows (1941 - 2001)(endnote 1), well known to all serious environmentalists, was one of the very few environmentalists who realized that it is not enough just to want to improve on things in order to overcome the horrendous environmental and social crisis that humanity is facing presently. She knew that it was important that we have a vision of how the world we would like to live in should look like in order for our efforts to be successful in averting, in mollifying the effects of the "crash" that is to follow our having reached the limits of being able to punish ourselves and our planet without experiencing any repercussions sooner or later. For this see her "Envisioning a Sustainable World" (Meadows 1994), and the chapter 8 of *Limits to Growth: The 30-Year Update* (Meadows, et al. 2004) in which the need for "visioning" is described.

It was Peter Senge (author of *The Fifth Discipline: The Art and Practice of the Learning Organization* 1990) who introduced Donella Meadows to Robert Fritz's "Technologies for Creating" (TFC) from where Donella Meadows learned of the need for, what she calls, "visioning", or "envisioning" at times (endnote 2). Robert Fritz's "Technologies for Creating" is best explained in Robert Fritz's *The Path of Least Resistance* (Fritz 1984)--a "must" reading for anyone who wants to understand Donella Meadows' "visioning". Donella Meadows' "visioning" gets misunderstood because "visioning" requires a bit more than mere intellectual understanding; it takes a while for the ramifications to "sink in" despite its being a very simple idea that says that we cannot get what we don't know what that, that we want to get, is. We have to first know what it is that we want, and only then we stand a chance of,

maybe, obtaining it. There is nothing at all "visionary" about this. "Visioning" is not anything handed down to us--we have to generate our visions ourselves. To paraphrase Robert Fritz: instead of reacting to outside (relative to ourselves) conditions, we set our goals ourselves according to what we really want (not that we might feel that we should be wanting), and start working towards what we ourselves decided that we really want.

Donella Meadows writes at the end of the subchapter of chapter 8 of *Limits* to *Growth: The 30-Year Update* (Meadows 2004) titled "Truth-Telling":

All the models, including the ones in our heads, are a little right, much too simple, and mostly wrong. How do we proceed in such a way as to test our models and learn where they are right and wrong? How do we speak to each other as fellow modelers with an appropriate mixture of scepticism and respect?...

Donella Meadows died prematurely, and, as far as I know, did not pursue the matter of "...test[ing] our models and learn[ing] where they are right and wrong..." to a conclusion. (I would like to be wrong on this--please let me know whether there are any sources that I should be aware of.)

I, myself have run into this myself, if by a very different route; From wanting to live self-sufficiently, through wanting to be sustainable, to the recognition that a single family, not even a single community can ever make it to remain sustainable in a world that would swallow up such an entity without a hesitation! Naturally the whole world has to become sustainable in order for humans to survive without a shame!

I assume that this is the same with many other people who decided that to live sustainably is an intelligent way of existing on this planet for humans--while this decision might be easy for individuals, those individuals might start realizing that unless the whole of humanity becomes ecologically and socially sustainable, one's own living so makes little, if any, impact on the overall quality of life on Earth;

The problem becomes two-fold:

- 1) How to reconcile the different notions that there are about what "sustainability" is?
- 2) How to convince a decisive portion of humanity that to live sustainably is an intelligent way of existence?

When one surveys the sustainability movement, it becomes apparent (as it did to Donella Meadows) that although there is a lot of commotion about becoming sustainable, there are a very few people who would have an idea what a sustainable world should look like, because it is more common to hear about what people would not like to have in their realities, rather than what their ideal realities should look like. (note 3)

IMPORTANT: Things would be simple if everybody on Earth would like to live sustainably. The wide variety of what people understand under the term "sustainable" could be accommodated in one sustainable Earth model, providing, those ideas would indeed be provably sustainable--i.e.: it would be possible to demonstrate in models that they indeed are sustainable. Please see "Universal Platform for Developing Sustainable Earth Vision Cooperatively." (p1)

But--since not everyone on Earth desires to live sustainably, a different way of arriving at the whole of humanity living on Earth sustainably has to be devised:

It may be safely assumed that most people are reasonable enough to see that resolving of any differences, controversies, and complains--such as there might be among all on Earth--might be immensely easier if done in models, rather than in real life where it causes a great deal of waste of lives, resources, and time. All that would have to be done would be to want for all those reasonable people to arrive at a portrayal of an Earth that would offer

the optimal conditions for life for all. This could be done by modeling of any appropriate kind. It would be beyond and above the scope of this writing to describe all the possible implication of this approach, more on this is contained in these writings.

By using modeling it would be easier to introduce into such an ensuing "portrayal" notions of ecological and social sustainability; This, also, could be a way of "...test[ing] our models and learn[ing] where they are right and wrong..."--done by unifying and vetting all of these ideas in models, by finding out in models what ideas are more "sustainable" than others, using all the available knowledge that we have of ecological and societal processes to determine the merit of the ideas inputted. Although everybody would have the access to the interactive modeling process, it would never be personalities that would determine the process; it would always be ideas that would be vetted on the basis of their merit alone. Politics would become a true science where popularity contests between personalities would cease to matter.

The purpose of such "global unification" of the great variety of any ideas pertaining to human society and the global environmental concerns would not be any other than coming up with a single global model of what a sustainable Earth should be, its being a single model because one Earth can only have one sustainable future at a time, and striving for various different models in real life/time is a waste of time, lives, and resources, since all the differences among all the various ideas would have to be reconciled by trial and error method in real life/time anyhow!--we do not have much time left to be able to do that; we have to expedite this process by modeling. The modeling process in the end would be no more (but not less) than a tool that would take the horrendously wasteful and very inefficient way of finding out whether an idea is good or not out of testing the idea in real life, and do exactly the same--finding out how good an idea is--in models! Why settle our differences on battle fields, if we can resolve our differences in models? It

would not be necessary that everybody would have to take a part in modeling; this could be started with a few people from each opposing sides of any conflict currently underway on Earth (be it a ideological, or even an armed conflict), to start presenting rational, defensible resolutions to any problems. No personalities (that are so "necessary" in today's political process) would be needed--only ideas themselves would be entering the modeling process.

The model of an ideal world (ours) would be based on real hard data, on all that we know about this world and all life in it. The existence of computer games that depict entire worlds for, so far, entertainment purposes only, shows that the same, or similar approach could be used for designing an Earth where humankind's existence could be shown at its optimum.

It would not matter what means for modeling would be used as long as the means used would serve the purpose. On a local community level (where everybody knows everybody else well) discussions and finding out what what all members of the community wish for a happy life are would, perhaps, be a good start. But still--all the "visionings" made in all local communities would have to be all synchronized globally in order to see how all local sustainable communities would get along on the global scale. For this there hardly could be a better tool than the Internet where it would be possible to have a by all accessible interactive model of an ideal Earth.

In order to bring Donella Meadow's efforts to a fruitful completion, which could not be anything else but for humankind to become truly sustainable, the idea of "visioning" has to be introduced into the "sustainable movement" on a full scale, and all our various visions of what a sustainable Earth ought to be have to be synchronized and unified into a single, comprehensive design that then could be striven for by all of us.

It would mean that all our differences, controversies, conflicts, and complains would be resolved in models with much less waste of lives, resources, and time, instead of resolving those in real life and, at the same, time creating new problems, as the practice is today.

It would not be necessary that all people from the whole world would have to start modeling an ideal world together at first. At first it would be sufficient that the modeling would be started, if only by a handful of people (Margaret Mead: "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has." (endnote 4). But—the modeling process would have to become accessible to anyone who would want to do so also! The whole process would be entirely transparent, entirely honest, non-hierarchical, no top-down at all; the process would have to be so clear that learning it would be an organic process for anyone—from the simpler elements to more complexity gradually and at everybody's own speed, learning that that the learner would have to know, would like to know in order to be able to contribute the modeling process sufficiently informed (please see "Universal Platform for Developing Sustainable Earth Vision/Model Cooperatively" - p1).

This concept of unifying of individual ideas of what our common existence on this planet could be used also for resolving conflicts--it would eventually become an ideal grass-root government that would put our current way of doing politics out of business entirely. Please see "Designing a Lasting World Peace Together" (p41).

#### **Endnotes:**

#### Endnote1:

Donella Meadows co-authored together with Jørgen Randers and Dennis Meadows *The Limits to Growth* (Meadows, et al.1972), Beyond the Limits

(Meadows, et al. 1992), and *Limits to Growth: The 30-Year Update* (Meadows, et al. 2004), and wrote "Envisioning a Sustainable World" 1994 (these are only a few of her writings from among many others).

#### Endnote2:

The approach, which Donella Meadows calls "envisioning" and/or "visioning", is a part of "Technologies For Creating" (TFC), pioneered by Robert Fritz (Fritz 1984) is described in *The Path of Least Resistance*, (Fritz 1984) and is based on a common-sense notion that one cannot really ever get, achieve anything, unless one knows, as well as possible, what that something that one wants to get is. The best to show how difficult it is to get people to imagine what there should be in an ideal situation instead of listing everything that should not be there, please see a quote from Donella Meadows' "Envisioning a Sustainable World" (Meadows 1996):

#### A World Without Hunger

About ten years ago I ran a series of workshops intended to figure out how to end hunger. The participants were some of the world's best nutritionists, agronomists, 2 economists, demographers, ecologists, and field workers in development -- people who were devoting their lives in one way or another to ending hunger.

Peter Senge of MIT, a colleague who helped design and carry out the workshops, suggested that we open each one by asking the assembled experts, "What would the world be like if there were no hunger?" Surely each of these people had a motivating vision of the goal he or she was working for. It would be interesting to hear and collect these visions and to see if they varied by discipline, by nationality, or by personal experience.

I thought this exercise would take about an hour and would help the participants get to know each other better. So I opened the first workshop by asking, "What is your vision of a world without hunger?" Coached by Peter, I made the request strongly visionary. I asked people to describe not the world they thought they could achieve, or the world they were willing to settle for, but the world they truly wanted.

What I got was an angry reaction. The participants refused. They said that was a stupid and dangerous question. Here are some of their comments:

- Visions are fantasies, they don't change anything. Talking about them is a waste of time. We don't need to talk about what the end of hunger will be like, we need to talk about how to get there. - We all know what it's like not to be hungry. What's important to talk about is how terrible it is to be hungry, - I never really thought about it. I'm not sure what the world would be like without hunger, and I don't see why I need to know. - Stop being unrealistic. There will always be hunger. We can decrease it, but we can never eliminate it. - You have to be careful with visions. They can be dangerous. Hitler had a vision. I don't trust visionaries and I don't want to be one.

After we got those objections out of our systems, some deeper ones came up. One person said, with emotion, that he couldn't stand the pain of thinking about the world he really wanted, when he was so aware of the world's present state. The gap between what he longed for and what he knew or expected was too great for him to bear. And finally another person said what may have come closer to the truth than any of our other rationalizations: "I have a vision, but it would make me feel childish and vulnerable to say it out loud. I don't know you all well enough to do this."

That remark struck me so hard that I have been thinking about it ever since. Why is it that we can share our cynicism, complaints, and frustrations without hesitation with perfect strangers, but we can't share our dreams? How did we arrive at a culture that constantly, almost automatically, ridicules visionaries? Whose idea of reality forces us to "be realistic?" When were we taught, and by whom, to suppress our visions?

Whatever the answers to those questions, the consequences of a culture of cynicism are tragic. If we can't speak of our real desires, we can only marshal information, models, and implementation toward what we think we can get, not toward what we really want. We only half-try. We don't reach farther

than the lengths of our arms. If, in working for modest goals, we fall short of them, for whatever reason, we reign in our expectations still further and try for even less. In a culture of cynicism, if we exceed our goals, we take it as an unrepeatable accident, but if we fail, we take it as an omen. That sets up a positive feedback loop spiraling downward. The less we try, the less we achieve. The less we achieve, the less we try. Without vision, says the Bible, the people perish.

However, while it might be incomparably easier to decide on personal goals to achieve, or to get a small group to agree on what the preferred commonly shared existence (as in the quote above), the challenge in the case setting a goal for a favorable future of a whole planet is the need to unify coherently all the individual visions for a good, optimal future (developed to what-ever degree) of all who share and of all who will share the Earth!

#### Endnote3:

The best way to see that a very few people can describe an ideal world that they would like to live in is to ask them. Usually they would tell you at a great length about what they don't want to have in such an ideal world, but when it comes to describing what they would like to have in it, the difficulty becomes apparent. (Fritz and Meadows make similar observations.)

#### Endnote4:

Margaret Mead with Gregory Bateson were at the beginnings of developing "Cybernetics" (Norbert Wiener) and "systems theory" (Jay Wright Forrester, Donella Meadows).

#### Home: The Very "Leverage Point" (note1)

The most obvious place where a meaningful intervention would start a profound change for better in the whole world is the basic unit of any

community--a home. It is at home where we grow up and learn the basics of living as humans; it is where we should go to get well, to rest and to recuperate; it is at home where we get ready, time after time, to interact with the world "outside". However, the "home" of today is very different from what it ideally ought to be.

A "home" today, on the whole, is an indicator of our social system's dysfunctionality (note2). Consider this: It is obvious to everyone that humans need to rest, to sleep, to take care of their basic needs to be able to function well within the society. To take care of all these essential needs should, of course, be done at home. Yet it is commonly accepted as a good thing when prices of homes go up and thus homes become less available. Logically, rationally this does not make any sense!

As a result of this the society, as a whole, suffers. A "home", as we know it today, is frequently a source of discomfort, anxieties, a source of existential stress, and this results in a plethora of societal ills that plague the whole society.

People who don't have a proper home are more likely to suffer from lack of rest, sleep, from financial worries (about finding a good home, about having to pay the rent, mortgages, taxes ...); They, due to this stress, are more likely to engage in criminal activities, they are more likely to become physically and mentally affected, and generally the unavailability of a really good home to most members of the society creates stress that ultimately permeates all parts of the society.

The obvious solution to this conundrum would be to ensure that instead of a home to be an expensive privilege, to have a home, no matter how humble a home, should become a thing necessary for people to have in order to be able to function well in the society. In short--instead of a source of stress, a

home should become a source of comfort, a place to where one goes to become well.

The most expedient way to make sure that a home becomes a secure and a sustainable foundation of the society would be to change only one thing: the right to sleep, to rest, and to be able to take a basic care of one's basic necessities would have to be introduced into the constitution as an inalienable right; No more, and no less.

To constitutionalize all the basic things that are necessary for a satisfactory quality of life as basic rights would alone ensure an organic unfolding of all necessary adjustments in the social fabric. An unfolding into a profound and lasting relief that would be felt all across the globe.

People need land to live on, to have their homes on. The surface of Earth is a valuable and also a limited resource. A resource that is too valuable to let any irrational, fickle commercial interests to be in charge of. Land is precious, it has to be managed intelligently--all kinds of life, not only humans, need it for living; An unnecessary stress, felt by all directly and indirectly, is caused by the gross mismanagement of land that is currently in existence--a stress that we hardly can allow to exist, especially in times of ecological and social crises that we are faced with these days.

A good stress-free home (one's castle indeed!) should be the basis of any truly civilized society, regardless whether the times are good or bad. At home is where culture is being continuously re-created. If there, at home, is any lack what-so-ever, it will affect the whole of the civilization unfavorably.

#### Note 1

"leverage point"--a term probably most popularized by Donella Meadows - www.sustainer.org/pubs/Leverage\_Points.pdf .

Note 2:

Dictionary.com: dysfunction - noun

2. any malfunctioning part or element: the dysfunctions of the country's

economy. 3. Sociology, a consequence of a social practice or behavior

pattern that undermines the stability of a social system.

http://dictionary.reference.com/browse/dysfunction

Mahayana: Philosophy for Sustainability.

The following reflects author's own understanding of the terms "Mahayana philosophy" and "Bodhisattva" based on what the author learned mostly from the so-called "Tibetan" Buddhism as taught by the many "Tibetan" (although not all of them Tibetan) lamas and teachers that the author had the good fortune to encounter.

Mahayana is a view that acknowledges the interconnectedness of all phenomena across all time and all space; a view that posits that any- and everyone's well-being depends on the well-being of every other being across all time and all space.

A Bodhisattva is one who strives to realize the ideal of Mahayana, and therefore regards the well-being of all other beings as important as one's own well-being.

To live ecologically and socially sustainably means to acknowledge the need of all beings--all beings without an exception--to live as well as possible here and now.

Thus the need for living ecologically and socially sustainably is implicit in Mahayana.

Therefore--an aspiring Bodhisattva would help all beings, starting with all beings that there are here and now (for here and now is there always), to be mentally and physically optimally well--with no beings favored, with no beings left behind--and therefore an aspiring Bodhisattva would promote the way of living fully ecologically and socially transparently sustainably.

To live "transparently sustainably" is necessary in order that should ever anything start becoming non-sustainable, it would be spotted and corrected soon at the start. "Transparency" in this case could be (for working purposes) defined thus: the younger a child to understand any supposedly sustainable ecologically and/or social process would be, the more a chance there is that such a process would indeed be sustainable.

#### IMPORTANT!:

The reason that humanity has not become ecologically and socially sustainable yet, and that there still is no lasting world peace in evidence, is that we all wish, meditate, and pray for different things in this regard.

What is needed is to create a unified idea of what living ecologically and socially, and what a lasting world peace should actually be like, so that we all aim for the same thing! More on how to unify all the diverse ideas of what what ecologically and socially humanity, and what a lasting world peace should actually be like, please visit "Universal Platform for Developing Sustainable Earth Vision Cooperatively" (p1), and "Designing a Lasting World Peace Collectively" (p41), where I am trying to introduce the concept of designing the future of the Earth collaboratively.

#### Meditation:

Find, or imagine that there is, a space in which all the differences, controversies, conflicts, and complaints of all beings that there are here and now would be resolved, without any delay, by the power of all true

Bodhisattvas ever merit by using appropriate, skillful, and expedient means, and where all the ideas of what anyone might think that their future should look like would be reconciled with the ideas of all others, so that conflicts in real life, bringing about real suffering, would be prevented from occurring.

#### Wish:

May all differences, all controversies, all conflicts, and all complaints that there are in the world among all beings be resolved harmlessly in meditations, by prayers, in models, and/or by using what-so-ever wholesome, expedient, and effective means! May humans become ecologically and socially fully and truly transparently sustainable (and may they stay so forever!) for their own good, and for the benefit of all those beings who suffer unnecessarily only because of humans! May we have good sustainable homes for ourselves, all our children, all our families, our friends, and our ohana!

Please dedicate your thoughts to the optimal benefit of all beings of all three times and ten directions of space, starting with the optimal benefit of all beings here and now on Earth.

### O Bodhisattvas!

May all beings, without an exception, benefit utmost by this action in all ways possible, spiritually and materially alike, starting with all beings that there are here and now.

#### O Bodhisattvas!

One thing in every Bodhisattva's practice these days stands out: no matter how hard we practice--so that all beings (without an exception) benefit--the conditions for life in this world continue to deteriorate at ever increasing pace.

What can be going wrong? Why isn't the quality of life for all beings here and now improving?

No matter what explanations there might be offered, none satisfies, no matter how authoritative those explanations might be.

I would like to offer an explanation that, perhaps, will make sense:

The reason that things in this world generally are going from bad to worse, is that we don't have a clear idea, a clear thought in our minds, of how the affairs in this world should be conducted in order to create the optimal conditions for existence for all beings here and now. Or, perhaps, we, individually, do have ideas of how this should be done, but not a single one of our ideas is identical with ideas of others, and we might not even be aware of this, since there is no proper way to compare our ideas that we might have on the subject with each other, and therefore we all direct our efforts towards, sometimes even fundamentally, divergent objectives; in the end, due to our working towards different objectives, because there is no clearly defined idea of what this world should be like at its optimum, there is no chance for conditions for all life here and now to become optimal ever.

What needs to be done is that we all agree (by what-so-ever expedient and skillful means) on what actually the optimal conditions for all life on Earth should be. Without our harmonizing and unifying of all such ideas of what the ideal state of things in this world should be, we shall continue to see the situation in this world to deteriorate, wondering all the time how come our various practices meant to benefit all beings optimally bear no satisfactory results.

That all beings (with no exception) benefit optimally, fully here and now is very important, because here and now is forever in all three times and all directions of space. If all beings don't benefit by our actions here and now, they never will. Here and now is all we have ever. All beings have to benefit fully here and now!

Bodhisattvas! What kind of a world should the Earth be to accommodate all life optimally? How shall we unify, harmonize all our individual ideas about what this world should be like ideally so that we all work towards one clearly defined objective?

May all differences, all controversies, all conflicts, all complaints that there are in this world among all beings be resolved peacefully without any delays by the power of all Bodhisattvas ever merit!

#### !OmManiPadmeHum!

May humans become fully and truly forever transparently sustainable for their own good and for the benefit of all beings!

Thank you, Mr. Jan Hearthstone - www.ModelEarth.Org .

## **Creating Lasting Peace:**

If we, the people, were really sincere about having real Peace in the world, we would pursue creating Peace by peaceful means more actively rather than by relying on our military might!

# Why Prayers, Meditations, Wishes, and Any Such Don't Help to Establish a Lasting Peace in the World.

It is a safe assumption that ever since humans started experiencing the horrors of warfare, they also started to wish to live in peace that would not end with a war again.

Humans in great numbers have been wishing, praying, meditating for peace since time immemorial, but, so far, with no lasting results. Why should this be so?

The answer might be that the very reason that wars always come back is precisely because we do want to live in peace!--we don't experience a lasting peace, because our ideas of what peace should be differ from each other so greatly, that we go to war to settle our differences again and over again.

A lasting world peace is possible, of course--it is within human capabilities to effect this--but since our ideas of what such a peace should look like are so diverse, we have to learn how to resolve our differences peacefully, instead of ultimately choosing war every time we feel the desire for peace.

#### This is what I feel should be done:

All of us who pray, meditate, wish, and etc., for a lasting peace in the world have to get together one way or another, and come up with one unified design of a world we would like to live in. A design in which it would be possible to see how we all are to live together in one world in as small detail as possible. Differences that normally would get resolved in real life with often damaging results would be resolved harmlessly in a model during the process of hammering out of a design in which all of us would find an optimal place in.

The idea on how to create a lasting Peace in the world is also presented in a

## **Designing a Lasting World Peace Together.**

Over the ages most people always desired to live in a permanent state of peace; they prayed for it, imagined it, worked for it continuously since time immemorial. Lasting "Peace on Earth" is the goal of many religions and philosophies. The reason that, so far, no lasting peace in the world materialized yet is due to our (sometimes great) differences in what we mean when we say "peace on Earth". Since we do not have a unified, common idea of the concept, "peace on Earth" can never happen. Instead we always end up fighting for our version of "peace", and we wonder why any lasting "Peace on Earth" never really comes about.

Knowing that every time of peace in human history ended in a war, what should "Peace on Earth" look like, so it would not result in a war again? Unless we can answer this question, we can never achieve real "Peace on Earth".

We should learn how to imagine, in as much detail as possible, what would constitute a real "Peace on Earth", and then, since we each would have a different concept of the idea, we should learn how to reconcile all our differences in order to arrive at a unified idea of what "Peace on Earth" should be, because only one version of by all shared reality can manifest at a time, unless each of our versions were truly sustainable—more on this in "Universal Platform for Developing Sustainable Earth Vision Cooperatively" (p1).

We have to ensure that our reality is one that would be accepted by all of us who are to experience it--hence we have to first "design" our common reality

to be shared by all of us in models (or using what-so-ever expedient means: "gedanken experiments", round-table discussions, etc.); we have to see that we like it, and then we set out to materialize it coherently together, cooperating closely and enthusiastically.

Unifying and reconciling of all the different ideas that we might have about the future of the Earth in a model (or using whatever appropriate means), and then working towards this unified ideal would prevent conflicts from happening in real life, since, after all, wars happen because people go to war so that peace happens their way.

So that we do indeed arrive at a reality that would be preferred by all, we have to first see what it actually is that we, collectively, want! Unless we can agree on what it is that we collectively want, we would merely continue to strive for a reality that we would like to experience individually--and this would, of course, result in reconciling of our differences in real life, with all the accompanying suffering that we are familiar with: social and environmental degradation that happens only because we don't agree on what should be the best for all of us. In other words--instead of reconciling of our differences harmlessly in models (or by using any other expedient means ), we let our differences to reconcile in real life causing real harm and grief.

#### A wish:

May all differences, all controversies, conflicts, and all complaints that there are among all of us who share this planet be resolved harmlessly in meditations, prayers, models--using what-so-ever wholesome, expedient, and appropriate means--to benefit all beings, starting with all beings that there are here and now in this world! May there be no one in this world who would not benefit optimally!

May humans become fully ecologically and socially forever transparently

sustainable for their own good and for the benefit of all beings!

#### Meditation:

Find, or imagine that there is, a mental space in which all the ideas of what anyone might think that their future should look like would be reconciled with each other, so that conflicts in real life would be prevented from occurring. Please dedicate your practice to the optimal benefit of all beings of all three times and ten directions of space, starting with here and now on Earth.

--

If we, the people, were really sincere about having real Peace in the world, we would use peaceful means to create Peace in the world rather than rely on the military!

# Defining "Sustainability" by Illustrating the Concept Using Modeling (instead of by merely describing it).

One great obstacle for achieving a sustainable future for humanity is that the term "sustainability"/"sustainable" is being understood differently by different people. Without understanding what "sustainability" should be about, how can we ever become "sustainable"? There would be less confusion in this if, instead of defining the term by describing it, the definition would be clearly illustrated by modeling any instances of anything "sustainable" in models.

Proving whether anything would or wouldn't be sustainable could be done by "evolving" in models the whatever supposedly sustainable situation from a simple, clearly sustainable one to the desired level, step by step, making sure at each step that the whichever situation depicted would remain strictly sustainable and so be able to demonstrate the sustainability of any supposedly sustainable system in question.

There is a difference between the actual (Darwinian) evolution and the evolution as presented in this kind of modeling:

The actual humankind evolution is being driven, for the most part, by circumstances, not by rational thought.

In contrast, in modeling a more complex sustainable situation by "evolving" it from a simpler one, the driving force is generated by the situation that is being desired.

### Preventing a Ton of Cure: Disaster Preparedness.

Disasters, be they natural or human made, do occur--they have been occurring all throughout human history, they occur nowadays; they are nothing new to us. They do not surprise us.

Sadly though, whenever a disaster causing human and material damages happens, we act very shocked and surprised, time after time again. I say "act", because we should not, really, act surprised each time a disaster causes life loss and damage, wherever this might happen in the world, because we know of the possibility of disasters happening just about at any place on Earth, and we can envision what damages might occur at those places at such times.

Common sense dictates that it would be much wiser to prevent and to mitigate any possible effects of any disaster before it happens! I am sure that the state of the art of our science is such that we already are aware of the inadequacy of our disaster preparedness--why don't we use our capabilities, our knowledge to be ready (better than we are now) in case of disasters, and more importantly--why don't we do everything humanly possible to prevent the terrible damages and life loss that happen every so often, before a

disaster does happen?

All this that I write is very trite, but it is true--time after time again. We know that disasters do happen; we know very well what the aftermath of any potential disaster anywhere in the world could be, and yet--anytime a disaster strikes, we play the same game over and over again. We feel very sorry for the victims, we feed the huge relief industry with our money, and we are ready for the next round, without ever trying to address the problem at where it might be stemming from well enough to make a difference.

Wouldn't it be much more humane to become concerned before disasters happen, and feel compassion for our neighbors before something preventable happens and causes grief to them?

Here is what I would like to suggest: Let us have a look all over the globe, and let us try to imagine what damages could happen should a disaster, natural or otherwise, happen there. Let us do get prepared for any relief that might be necessary in the future for after any disaster might happen, but--let us also start suggesting what the optimal conditions at each potential disaster site would have to be to make damage and loss of life minimal, should a disaster happen there.

May all these suggestions be made "visible" in models that would be accessible to anyone on the Internet, or by using what-so-ever media available, and may all this be open to critique and input by anyone who might feel that they may have some ideas pertinent to the subject to offer. It would not be realistic to expect that all of these suggestions of how the ideal situations in which as little damage and life loss would happen in case of disasters would be immediately followed up upon, but, all of these suggestions would be there to be implemented when possible. The models would be there for anyone to see where to put their efforts into before

anything bad happens, rather than be ever so concerned after a disaster strikes.

The news that we hear on the radio on the TV, etc., after each disaster strikes are the wrong kind of news. What the news should be about every day, should be about how we are preventing the next disaster from happening! About what the potential dangers are where, and about what should be done so that the next disaster, should it happen, would cause as little damage as possible.

# To Those Following in the Footsteps of Robert Jungk, R. Buckminster Fuller, Donella H. Meadows, and Others ...

It was clear to Robert Jungk, R. Buckminster Fuller, Donella H. Meadows, and many others that a good future for the Earth had to be designed with the participation of all who had an interest in realization of such a future, but, so far, no progress in this is happening yet.

There is a need for all of us who are trying to follow in all the above mentioned footsteps to unite our efforts, to cooperate with each other on a way to make it possible for everyone with a stake in a satisfactory future to be able to compare one's ideas about what a satisfactory future for the Earth should be with the ideas of others on the basis of all of our knowledge of Earth and societal processes, in order to make our efforts for a good future effective.

The end product of our efforts should be a visible portrayal of what our world should look like, a portrayal that would be continuously developed by all, and used as a reference for us to see our progress towards our commonly held ideal.

As of yet, this still is not happening. Effort is being wasted. The need to unify our diverse ideas of what the ideal future of Earth should be like remains unfulfilled.

To quote Donella Meadows (at the end of the subchapter of chapter 8 of Limits to Growth: The 30-Year Update (Meadows 2004) titled "Truth-Telling"):

All the models, including the ones in our heads, are a little right, much too simple, and mostly wrong. How do we proceed in such a way as to test our models and learn where they are right and wrong? How do we speak to each other as fellow modelers with an appropriate mixture of scepticism and respect?...

#### Links:

Robert Jungk

"Future Workshops"/"Zukunftswerkstätten" - Robert Jungk, Ruediger Lutz, Norbert R. Müllert:

"Future Workshop", Wikipedia -

https://en.wikipedia.org/wiki/Future\_workshop

Jungk, Robert, Müllert, Norbert (1987): Future workshops: How to Create Desirable Futures. London, England, Institute for Social Inventions ISBN 0-948826-39-8

R. Buckminster Fuller

The World Game (1971) -

World Game - http://bfi.org/about-bucky/buckys-big-ideas/world-game

http://challenge.bfi.org/sites/challenge.bfi.org/files/pdf\_files/world\_game\_seri es\_document1.pdf
Wikipedia, World Game - https://en.wikipedia.org/wiki/World Game

R. Buckminster Fuller's World Game and ModelEarth - www.modelearth.org/buckymodelearth.html

Mother Earth News, World Game - www.motherearthnews.com/Nature-Community/1971-05-01/The-Plowboy-Interview-R-Buckminster-Fuller.aspx#axzz2MdHSgDe7

# How I Arrived at the Concept of Designing the Future Collectively.

Since early on in my life I had been attracted to self-sufficiency, feeling that the "system" I existed in was grossly inadequate to support intelligent, rational existence. I gravitated in my interests towards any examples of people providing for their needs "from the scratch", such as growing their own food, building their own shelters, making their own clothes etc. This continued well into my mature years when I already had children--I was imagining us living somewhere on our own land independently ... .

I am sure that many people entertain such, or similar, fantasies that eventually subside and become buried under the heap of quotidian existential concerns, but I had a "lucky break"--I was made homeless, and I had a few years to reflect on how to get out of my predicament; eventually it occurred to me that trying to re-establish myself into the same system that allows homelessness to exist in the first place did not make any sense--I would be putting my efforts into allowing the same to happen to me again potentially--I resolved to solve this conundrum. This is how it roughly

### happened:

While still homeless I enrolled in college in order to acquire knowledge and learn skills that would be good to have for a self-sufficient, of the society independent living. I started taking horticulture, weaving, and pottery courses. I was learning how to grow plants for fiber and dyes used in weaving--I even started a small garden at the college to grow those. I was learning to use locally found clay and minerals (for glaze) for pottery ...

With the time, though, I realized that even if I, with my family, did achieve self-sufficiency, without the whole of humanity becoming also self-sufficient, my family's self-sufficiency would be imperiled by the existing system that abhors anything not under its control. I decided to study social sciences and I enrolled in Anthropology classes in order to learn about human society.

In Ecological Anthropology I started finding out about how humans function within the whole Earth ecological system and I started being interested in ecological and social sustainability of humans. I realized that humans today were living "out of sync" with their environment, causing themselves and many other species on this planet great damage, and that humans becoming ecologically and socially truly sustainable was the solution to this.

The difficulty of how for humans to become truly sustainable is obviousthere are far too many opinions on what would constitute a "sustainable humanity", and also on how to achieve that state.

I was thinking about the problem of humans achieving some kind of consensus on what a sustainable humanity should actually be like, because I knew that without achieving such a consensus it would be unlikely for humans to ever become truly sustainable, due to the many, at times very different and even outright contrary opinions on the matter, when one day,

after reading an article in a social science periodical (I cannot recall its name now) about using computer modeling to present complex social situations, I thought that, perhaps, computer modeling used to reconcile all the various ideas about what "sustainability" for humans should mean could be helpful. I first mentioned this, in the Fall of 1998, in a final exam for an Anthropology course--it is online at www.modelearth.org/Anthro415-1998-ModelEarthConcept.pdf.

Since then the concept developed farther into something that would not, perhaps, have to involve too much the use of computers:

The importance of sustainable solutions to our problems is obvious--any superficial "fixes" result in creating further problems, only transparently sustainable solutions that present situations that clearly show their ability to sustain themselves perpetually are worthy pursuing. All these "transparently" sustainable solutions could be tested whether they are really sustainable and compatible with each other in a sort of "sandbox", on a "platform", using definite, not vague, criteria that would be arrived at by using all that we know about how Earth and societal processes work--a sort of a "sieve".

The "Universal Platform for Developing Sustainable Earth Vision/Model Cooperatively: Global Citizens Envisioning the Future Together" (p1), is meant to be this kind of a "sieve" to enable us to see how any idea about "sustainability"/"sustainable" would work out in the context of a sustainable world; whether on a community, regional, or at the global level.

Two things made the concept of designing the future of the Earth collectively possible: Mahayana philosophy (p35) and the book *The Path of Least Resistance* by Robert Fritz. (Fritz 1984).

Mahayana philosophy (p35) - takes a holistic view of any system--all beings

in any system (be it the whole Universe, or just a town locally) are equally important--roughly put: unless all beings are optimally happy within a system, no beings in that system can become truly happy--to present the whole of Mahayana philosophy in a single sentence. I consider Mahayana philosophy applicable to the collective situation in our world, as it becomes increasingly obvious that in any system, even a complex one (e.g. the Earth system) no parts of it are negligible; quantum theory, the science of ecology, etc., are attesting to this by their findings: all phenomena are intricately connected and influence each other in ways that we yet have to grasp, if we ever can.

The Path of Least Resistance (Fritz 1984) in essence says that one cannot get a desired result, unless one knows, into as small detail as possible, what that result should be; it also says, in a nut-shell, that fighting problems without knowing how things should ideally be (in relation to those problems) will lead nowhere--one just would continue fighting "problems" forever, because there is never any shortage of problems, but rarely people know what an ideal situation that would make them happy (that they should strive for, abandoning fighting problems as their primary preoccupation) should look like.

I find the ideas contained in the book very helpful in times when I am unsure about the direction I should take--they help me to keep clear about what I want in my life.

For an individual to eventually arrive at an ideal worthy striving for is easy when compared to the difficulty of arriving at an ideal that would be acceptable to the whole of humanity. That there is a real need to arrive at ideals that would be acceptable by the whole humanity is obvious once one realizes that humanity, at any given time, always shares the same planet!, and that most of the problems we experience come from humans not having a common idea of how we all, collectively, should share the same place at the same time successfully!

The challenge is to harmonize and unify all the various ideas that exist in this world about how this world should be ordered--ideas that often are contrary to other people's ideas, more often than not.

Donella Meadows in *Limits to Growth: The 30-Year Update* (Meadows 2004), pondered a similar question: "... How do we proceed in such a way as to test our models and learn where they are right and wrong? How do we speak to each other as fellow modelers ..." (Meadows 2004); I followed up on it in an article: "Donella Meadows' "Visioning": Global Citizens Designing a Sustainable World Together" (p21).

Using modeling as a way of resolving differences among people would bypass the hierarchy based systems in existence now that rarely succeed in resolving of such differences successfully for long, if ever. It would not matter at the start that creating a model of an ideal situation with the participation of virtually all among whom those differences exist would have no executive powers. By having a portrayal of an ideal situation that would be acceptable (ideally) to all individuals among whom the differences exist would soon positively and profoundly affect all attempts, even those undertaken by existing official mechanisms, at resolving of those differences.

It is difficult to know what people are thinking about what kind of future they might like to have, so that we never quite know whether our ideas about what the commonly shared reality are quite "in sync" with ideas that others might have on the same subject.

Ordinarily we try to find out what others feel about important issues by the means of public discourse, but this way has its drawbacks--the meek and the disenfranchised ones are not encouraged and enabled to participate in such a discourse, and whatever reservations and objections those might have usually remain unheeded, and their discontent is carried into the future to cause problems there anew. The "silent majority/minority" that rarely takes a

part in the civic discourse might be enticed to participate in the modeling, because now they would have a chance to influence their own future by a process that would be freely accessible by anyone, and by having the opportunity to input the modeling process everyone would also learn about all the issues pertinent to what ever aspect of creating the common ideal--the ideal form of "education! - "Ecologically and Socially Sustainable Education: Creating a Sustainable World" (p7).

It has to be born on mind that it would never be individuals somehow competing in the model, but rather that it would be ideas competing while forming the desired ideal common existence! By presenting all of these ideas in a model it would be easier to "see" what of these ideas are more realistic than others, whereas a "normal" political is not always this transparent. Modeling our common reality by all who are supposed to share it would reveal what all those ideas are, and how they correspond to each other.

Initially the process of such modeling might, perhaps, be considered difficult to conduct, but it is worth starting doing, because the alternative would be to be sorting out the differences that there are among people in real life in same ways we have been using since time immemorial without much success so far, incurring real damage, more often than not.

Furthermore--I am convinced that with this kind modeling it would be possible to eventually start getting models/visions that would be depicting more and more a sustainable ways of life, as the model would be being honed to perfection continuously.

It would be impossible to introduce any opacity into the model (why bother? )--it is much easier and much more defensible to have the modeled situation as simple as possible, as transparent as possible. Imagine any social situation on Earth that would be transparent--as soon as any nonsensical

element would start taking a hold it would be possible to deal with it before it would give a cause to any complications.

My CV is at www.ModelEarth.Org/cv.html .

#### **CREDIT:**

The idea of designing the future collaboratively--"ModelEarth" (a working name for the idea) --is based on

Mahayana Philosophy (p35)

and

on the basic idea--that we need to know that we want to achieve well enough before we can actually strive to achieve it--contained in

The Path of Least Resistance by Robert Fritz

Salem, MA, DMA, Inc., 1984, ISBN: 0-930641-00-0.,

a book whose ideas I paraphrase and quote often, not always acknowledging this in these pages.

I am grateful to Cabrillo College, and to my Alma Mater--University of Hawai'i--for giving me the education that I need for what I want to do--please see my CV - www.ModelEarth.Org/cv.html , and my "Statement of Purpose" - www.ModelEarth.Org/statpurp.html !

#### DEDICATED

to the optimal physical and mental well-being of all beings anywhere and anytime.

May all differences and conflicts that there are among beings in this world resolve harmlessly in meditation, with prayers, in gedanken experiments, in models, before those differences resolve in real life, not infrequently causing real harm to beings involved.

#### !OmManiPadmeHum!

### Bibliography:

Fritz, Robert 1984 *The Path of Least Resistance*. Salem, MA: DMA Inc., ISBN: 0-93064100-0.

Global Footprint Network 2009 September 25 2009 "Earth Overshoot Day". <a href="http://www.footprintnetwork.org/images/uploads/EO\_Day\_Media\_Backgrounder.pdf">http://www.footprintnetwork.org/images/uploads/EO\_Day\_Media\_Backgrounder.pdf</a> (accessed October 5, 2009).

Meadows, Donella H., Jørgen Randers, and Dennis Meadows 1972 *The Limits to Growth*. New York: Universe Books

Meadows, Donella H., Dennis L. Meadows, and Jørgen Randers 1992

Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable

Future. White River Junction, VT: Chelsea Green Publishing Company

Meadows, Donella H. 1996 "Envisioning a Sustainable World." written for the Third Biennial Meeting of the International Society for Ecological Economics, October 24-28, 1994, San Jose, Costa Rica In Getting Down to Earth, 1996 Practical Applications of Ecological Economics editors Robert Costanza, Olman Segura and Juan Martinez-Alier Washington DC: Island Press

Meadows, Donella H. "Envisioning a Sustainable World." is online:
<a href="http://www.donellameadows.org/archives/envisioning-a-sustainable-world/">http://www.donellameadows.org/archives/envisioning-a-sustainable-world/</a>
(accessed 05/25/2012) It is a must read document; it explains best what Donella Meadows' "visioning" is. as a video: <a href="http://vimeo.com/13213667">http://vimeo.com/13213667</a>
(accessed May 25 2012)

Meadows, Donella H., Jørgen Randers and Dennis Meadows 2004 *Limits to Growth: The 30-Year Update*. White River Junction, VT: Chelsea Green Publishing Company

A synopsis of *Limits to Growth: The 30-Year Update*. Online at the Sustainability Institute (founded by Donella Meadows):

<a href="http://www.sustainer.org/pubs/limitstogrowth.pdf">http://www.sustainer.org/pubs/limitstogrowth.pdf</a> (accessed 10/06/2009)

The Systems Thinker--"Moving Toward a Sustainable Future." includes chapter 8 from *Limits to Growth: The 30-Year Update* <a href="http://www.thesystemsthinker.com/V16N9.pdf">http://www.thesystemsthinker.com/V16N9.pdf</a> (accessed 10/06/2009)