Sustainable Campus Report

By, Michael Padget

December 15, 2004

Prepared for ENVS 411
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Humboldt State University
Fall Semester 2004

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Introduction

The purpose of this paper is to identify a problem in the form of a problem statement, and to formulate goals and objectives as a means for solving that problem. The topics discussed in this paper include: a background on the problem, problem statement, goals, and objectives. Since the subject I have chosen is on writing of a very specific kind of book, I will give background information on that specific type of book and the problems associated with writing such a book.

The topic for this specific type of book is how to live on this planet in a sustainable way. The background for this topic involves a discussion about books written on problems we face in this world, and the problems with those books. The background section also contains discussion about books that are written with the intent of solving problems or generating solutions to problems in our world. The final part of the background section discusses why books fall short in discussing problems and solutions regarding the subject of long-term sustainable living on Earth.

Background

We have books describing problems in our world: over-population, health care, commercial agriculture, politics, the petroleum industry, pollution, deforestation, habitat destruction, and desertification etc. We have books describing serious dangers we are facing: fossil fuel use, global warming, economic instability, water shortages, and air pollution etc. We are understanding more and more about the environment and earth systems. We are beginning to develop a wide scope of knowledge in the fields of biology, ecology, geology, oceanography, and chemistry etc. An interdisciplinary approach to problem solving is becoming evident because problems on the Earth systems scale can no longer be addressed within the confines of one discipline. Jargon is getting in the way of these collaborative interdisciplinary efforts.

The problem with books on the problem is that they generally don't focus on solutions. People always need more evidence. Scientists can't prove human induced problems conclusively. This statistically significant based science that is widely used is narrow-minded. We are generally lost in the details. Because of this we are missing the point, the bigger picture, and the need for action. We already have enough information and technology.

Yet, much of our culture hides behind the excuse of doubt and insufficient evidence between cause and effect. Books on the problem have failed to make the connections necessary. They have failed to bridge between problem and solution. They have failed to solve the problems they so intricately describe.

Science is limited in the scope of what can be addressed and assessed (e.g. creation myths). Science cannot cross the line into the realm of religion or spirit. While at the same time, almost paradoxically, science can't escape the human element and subjective influence we have. Science fails to encompass objectivity into problem formulation, because it is bound by its own rules to be objective. Science fails to include perhaps the most important and influential factor upon Earth systems: peoples' value and belief systems. For this reason, scientific problem formulation can only be *part* of the problem formulation process; the other part is a matter of human belief, experience, and intuition. We view anything out of the domain of science to be non-credible information. For example, science is limited for these reasons: limitations of human senses and measuring devises, not everything can be measured or quantified, and scientists affect the experiments they set-up with their values, beliefs, biases, and preferences.

Next I'll discuss books that try to solve the problems we face in our world today. I'll also look briefly at why books on the solution fall short. After discussing books on solutions we'll take a look at why books are only part of the solution. This will lead us into a more concise problem formulation, goals for solving that problem, and objectives to help achieve the goals.

At this time we have some excellent books on alternative energy, green building, alternative transportation, natural health, and conservation biology. These are examples of books on the solution. Quite often these books are solving pieces of the puzzle, or parts of the problem. We even have some excellent books on whole systems thinking, problems with value-belief systems in our society, sustainable living, and so forth. Despite all of the multifaceted tombs of knowledge we have generated regarding human induced problems on Earth, and despite all of the solutions we have developed, we are still in the midst of a global crisis on numerous fronts.

Here are a few problems with books that try to form solution. There is too much information to synthesize when working on the Earth systems scale—or even the ecosystem scale. The information is complicated and technical, which goes back to the problems we discussed earlier regarding problem formulation and identification.

A focus on the entire system of solutions in context of their problems means breadth instead of depth. We may be spread too thin and the human capital that we have may be conflicting. In other words, there may be conflicting information, expertise, opinions, or science involved. Finally, we flat out don't know enough to know. It's difficult to make connections, and it's difficult to trace cause and effect in complex systems. It's difficult to monitor our success, or set-up criteria to base success upon.

There are authors that began to approach viable solutions—solutions that encompassed many workable and potentially successful solutions. However, the authors (Mollison, Walters, Weisman, etc.) of books on solutions often fail to provide a road map as to how they came to such conclusions, or how to get started. It is difficult to write a book about solutions to problems we face on Earth because the problems are unclear, contorted, or disputable, and the scope of the solutions are so interconnected and complex that the end result begins to look more like a dream world utopia than a viable solution. Furthermore, it is challenging to take action, when it's difficult to understand or know what action to take. After all, many people don't want to make a bigger mess out of the world than we've already made.

These books on solutions have failed to solve the problems they set out to solve. This is evident because the called for change is extremely slow. Judgment in this respect is difficult to pass, because people have different ideas about criterion for "progress" or "success." Generally speaking (in terms of a perception of the status quo), though advances may have been made in curbing worldwide problems, the collective effort has been null and largely ineffective in terms of a global effort. The evidence that change is extremely slow: species are still becoming extinct, and we dependent upon fossil fuel, populations are booming, and cancer rates are rising (etc.).

Why aren't books successful at catalyzing rapid societal change? Why have books and entire movements failed to bring about the kind of change we need? We are generally aware of the problems we are creating as a species (though still the problems and causes are controversial), but the inertia of the system is very difficult to overcome. As mentioned before, authors and intellectuals may be lost in the world of wishful thinking. Even upon reading a

thorough and relatively successful book on solutions for a better world, many people don't know what to do next. Many people are stuck, don't have money, take the action they would like to take, or don't have the tools or resources they need.

Books are only part of the solution. Education is the first step, and books are tools for education. However, book reading is predominantly passive; reading does not mean that you've done anything to fix problems in the physical world. All you've done is considered problems and solutions in your mind. Though such considerations are very powerful, all too often we forget to take action. Even if a solution is drawn out for us on paper, the implementation of that solution can be quite complex. There may be significant obstacles in the way: fears, lack of knowledge, lack of experience, and opposition. Thus, we need a book that helps people go from passive to active, from disconnected to being connected.

We need groups of authors collaborating with each other; we need teams of problem solvers bringing together their expertise and crossing jargon and language barriers. Finally we need ways to effectively and cooperatively move forward as teams and communities. We need leadership—to help guide those teams and communities—that is ethical, strong, and intelligent. Collectively created global problems require collectively created and implemented solutions.

We don't have enough books that adequately address problems in the world through whole systems thinking, that make holistic connections between problems and solutions, that present solutions *and* probable outcomes or paths, that connect people, that help people form sustainable community, that help people self-organize, and that move people toward taking significant action to make positive change in their lives.

I'd like to communicate to the world about how we might better live on Earth in such a way that is sustainable, harmonious, and synergistic with the biosphere, all species, and all people. And, to show people how to take action and make changes by providing them a road map, directions, and tools for success

Purpose

To write and publish a book that synthesizes my life experiences and education at HSU.

Objectives

- To complete a rough draft of a book by December 1st, 2004. A "rough draft" would include: rough sketch drawings, diagrams, and placeholders, a table of contents, 100-500 double spaced pages, a table of contents (resembling an outline), a preface, introduction, and minimum of several chapters, and a cheap binding.
- To print 20-30 rough draft books by December 15th, 2004
- To send or give a rough draft of the book to between 10-20 reviewers for feedback and editing by December 20th, 2004.
- To receive detailed feedback from reviewers no later than February 1st, 2005. Reviewers must use red ink pen for mechanics changes and blue ink pen for content changes. I will specify the type of reviewing I would like each reviewer to undertake. Some reviewers will be asked to focus primarily on technical editing, while other reviewers will be asked to comment in depth on a specific area or areas that they may have considerable expertise in. Each reviewer will be asked to review the entire text and make general comments, indicate their impressions of the work, indicate areas of the text that could be improved, and also give specific recommendations in type written form as to an area or areas of the text I have requested their attention and expertise.
- Reviewers will mail the rough draft text back to me, with their comments, corrections, and ideas, no later than the date mentioned above (February 1st, 2005). It is imperative that reviewers make every effort to be clear in their writing comments in the rough draft; this means that it is important for reviewers to write legibly.
- Reviewers should each write a 1-2 page type written summary of their thoughts, ideas, and impressions on the book. In this summary, reviewers should indicate strengths and weaknesses of the book, use constructive criticism, offer suggestions for better solutions, clarify key statements or ideas, and indicate what the liked best and what they liked least about the manuscript. In addition, reviewers may also converse with me directly.
- To complete a finished form of a book by May 1st, 2005. A "finished form" means a book that is approximately 200-300 pages in length, has an attractive cover, a photo of the author, finished black and white illustrations, a table of contents, preface, introduction, a

minimum of several chapters, an index, reference section(s), and potentially a glossary of key terms.

- To print 100-200 copies of the book on recycled paper. If the book is well accepted by readers, 100-500 more copies could be printed.
- The book's total budget should not exceed $2000-3000 US. This budget includes printing costs, shipping, typesetting, bar code, and author photograph. The budget does not include costs incurred for the cover art; as such costs will be covered in a different arrangement.
- A book that I can put together (e.g. typeset) primarily by myself

Strategies for Implementation

Traditional Printing

Traditional printing generally means printing a large number of books in order to drop the price per book down to an affordable level. See the table below for books printed versus price.

Quantity	200	500	1000	2000	5000	10000
Price	$5.26	$4.50	$2.60	$1.63	$1.04	$0.83

"Base your computations on the type of book you wish to sell, not the type of publishers you believe you are dealing with. Presses such as St. Martin's, Basil Blackwell, and the University of California Press publish both trade and scholarly books; St. Marti's publishes texts as well" (Edelstein, 187). — *1,818 Ways to Write Better & Get Published*

"Approximately 30 to 50 percent of your total book production costs will go to pay for preparing your book for printing. Of that amount, approximately one-third should go for cover design." — Griffith Publishing School

"For every $100 you spend on producing your book, the rule of thumb is to spend $20 promoting it, although a book that requires intensive marketing may cost you as much as it does to print and bind the book." — Griffith Publishing School http://www.hodi.com/publishing_costs.html

"The total cost of releasing a typical book with UP is usually under $1,000 including professional book design, broad distribution and initial promotion. If your book isn't "typical," you'll get a full quote before you sign or send money." — Unlimited Publishing, LLC http://www.unlimitedpublishing.com/costs.htm

"Your total investment will be between $699.00 for the most basic service and $1949.00 for the top-of-the-line Best Seller PLUS plan. Depending on the package, you will receive between 10 and 40 books. If you need more copies, you can order in any quantity (even a single copy if you wish) at any time, and pay only 40% of the retail price—or less." — Trafford Holdings Ltd.
http://www.trafford.com/1081s

E-book Publishing

E-book publishing involves formatting the book via traditional methods on the computer in electronic form (graphic design, presentation etc.), but rather than printing a hard copy for sale, the digital copy is sold to customers on the Internet. Quite often e-books are purchased at major online book outlets, such as Amazon. Adobe Reader is typically the software used by readers of an e-book. Just like a traditional printed book, the customer pays for the book, which has a virtual or digitally presented cover.

"The technology is currently very expensive and the New York Times recently reported that Lightning Source, Inc., a leading provider of e-book fulfillment, charges publishers over $4.00 per book, which is a higher cost per unit than that of small print run. Prices should come down as more publishers and retailers purchase the technology." — E-Publishing
http://www.writerswrite.com/epublishing/info.htm

"Are the major publishers pricing e-books too high? Are self publishing authors pricing their e-books to high? Check out this example: $7.99 for a mass market paperback and $6.99 for the e-book editions…"

"…One thing to keep in mind is I am talking about fiction books here, non-fiction e-books can and do command higher prices because of their technical knowledge. — E-Publishing Blog
http://www.shadowdark.org/epublish_archive/2004_05_01_archive.html

Print-on-Demand

Print on demand (POD) typically involves small offset publishers who transform an electronic PDF form of the book into a printed form, which customers can purchase through a variety of outlets (e.g. Amazon). The primary difference between POD and traditional printing is that POD produces books to order—often one at a time—and distributes those books directly to a customer or warehouse based upon demand at a specific point in time. The advantage of this technology is the low initial investment. See more discussion below.

"To get a rough idea, to produce 200 copies of a 200 page book 5.5 x 8.5 inches your cost would be $4.92 per book. This price includes a single color cover with a photograph, and perfect bound." — Instant Publisher.com
http://www.instantpublisher.com/faq.htm

"*Start Your Own Computer Business* was published by Foner Books in December 2002. The book is a 6" x 9" paperback at 168 pages, and Lightning Source charges Foner Books $3.09 for each copy printed for distribution. The first thing that will occur to anybody who's been involved in traditional publishing is that the same book could be printed on an offset press for around $1.00 each in large quantity. Here's where the print-on-demand and traditional publishing models diverge. There never are "large quantities" involved with POD, no tons of books to warehouse or thousands of dollars to tie up in inventory. Even more important for a small publisher using Lighting Source, there's no shipping cost for books sold into distribution."

Cover Price = $14.95
Sold at Amazon, Lighting Source, and Ingram (with 35% discount) = $9.72.
Profit = $6.63

Website direct based on a 25-book batch inventory (with 20% discount) $11.95.
Profit = $8.21

Offset printing via Rjcom.com would require about a 750 book run to rival POD costs per book. The offset printed books would make less profit yet cost considerably more.

"At 55% of the $14.95 cover price, Foner Books would have netted $6.72 per book, but would have been required to pay for shipping. Even if we had gambled on printing 10,000 books to bring the cost per book down to $0.83, the maximum profit would have been $5.89 per book, minus returns, warehousing, shipping, packing materials, and the cost of money. The hands-off $6.63 per book earned from Lightning Source is actually more than we would have earned by gambling on a huge offset print run, thanks to the short discount that's otherwise unavailable to most small publishers."

"Foner Books signed up with PayPal to accept credit card and PayPal cash account payments for the book. Previously, we had sold mail order only by check or through Amazon Marketplace. Web traffic in March reached double the level it had been at the start of the year, thanks to the addition of new content to the site."

"Foner Books netted a little over $11,000 in profit during 2003 on sales of 1623 print-on-demand copies of "Start Your Own Computer Business." There were no returns reported through Lightning Source, and only two books shipped by direct mail "went missing." The book was designed from the outset for print-on-demand publication since the niche subject and low page count (168 pages) would have rendered it a poor candidate for bookstore sales. Sales momentum built throughout the year, with occasional glitches due primarily to

availability issues and website traffic patterns. Sales continued to accelerate in the first quarter of 2004, proving that the demand in late 2003 was due to website traffic and word-of-mouth rather than holiday gift giving." — Foner Books
http://www.fonerbooks.com/pod.htm

"Publishing a book requires no set-up fee, no minimum order, and no exclusivity. Set your own royalty. You earn the full amount of your royalty for every book sold. Lulu pays you monthly through PayPal. We earn only a 20% commission on each sale." — LuLu.com
http://www.lulu.com/static/on-demand-books1.php

Internet Publishing

Internet publishing is the communication of information via hypertext mark up language (HTML) via the world-wide-web. Book information is held on a server and served to a customer once a fee has been paid. The communication devise that makes such a transaction possible is called file transfer protocol (FTP). The advantage of this form of publishing is that it is quite cheap, and is accessible to about 30-40% of the world, as nearly 1.8 to 2.4 billion people have Internet access in the world.

"My best argument for Internet book publishing is the fact that you're reading this. It didn't cost me a dime to bring you here and hold your interest down to this point. In fact, the Foner Books website costs me $10/month, and currently averages around 1500 unique visitors per day. The majority of people visiting this site come for the computer or business related material, though my article about Amazon Sales ranks frequently breaks into the top 10 pages by drawing over 50 visitors a day." — Foner Books

Other Strategies & Additional Considerations

The primary take home lesson from Foner Books is to publish your book in multiple profitable formats, because the market is dynamic and a diversity of sales avenues helps to buffer the lags in any single market. Lesson number two: slow shipping time (more that 1-3 days) is a real turn off for customers. Lesson number three: the title and subtitle of the book is vitally important to sales for that book and just a small change can have a large impact.

Lesson number four: earning a low ranking on Amazon helps drive a positive feedback loop for selling more books; once you break the threshold among the top 10,000 books, you'll sell more books. Lesson number five: low or zero book stock at distributing warehouses, because of high sales or miss-management of supply and demand, means profit loss. Lesson number six:

once you break a pivotal sales point, distributing companies and their warehouses will risk higher stock, which can allow the supply necessary to sell more books.

> "Hiring an experienced cover designer is probably the best investment you can make, and this service will probably be available at a reasonable cost through your local printer a $200 investment or less if no original artwork is required." — Foner Books

> "The smaller trade paperback format, 5 1/2" x 8 1/2", is the only size that can be printed in quantities under 1000 books without costing a huge premium. In both cases, the printed book will actually be a little smaller, up to 1/8", due to the limitations of the short run binding process. The other sizes really aren't cost effective unless larger presses are used, which require larger print runs to be cost effective." — Foner Books

> "To self publish a hardcover for a 100 or 200 book run will cost somewhere from $5 to $10 extra per book, depending on the process. At 1000 copies, the hardcover price comes down to $2 per book, including a four color the dust cover." — Foner Books

Weighing Alternatives

Ranking

Decisions on these alternatives will be made using a ranking system. The alternative showing the highest rank will be the primary solution to the problem. Ranking will be achieved via a 1 to 5 scale—5 being the highest, or most advantageous or beneficial solutions, and 1 being the lowest or least desirable outcome.

Price (Cost of Production)

Cost of production, or price, means the amount of USD it will cost *per book unit* to print at a quantity of 100-500 books. Ranking is based upon up-front costs, and the goal of staying within the pre-defined budget of $2000 to $300 USD. One critical component to understand is that high volume printing (traditional) incurs high storage, warehousing, and shipping costs because the stock must be purchased in large volume.

Format

There is one primary question to be resolved in formatting. Does the format of the proposed publishing medium or method match my goals and objectives? Some publishing mediums can only print smaller books and stay within budget. Hardcover books cost significantly more than do soft cover books. The paper type may significantly increase the cost

of the book. I have indicated as a goal that the paper be recycled. I did not specify the amount, quality, or content source of the recycled paper (i.e. post-consumer waste etc.). The number of pages a book has can also increase the price and the formatting considerations, which in turn may place limitations upon the desired outcome.

Because a printed book is desired and set forth as an objective, it is important to note that within the decision matrix, electronic print mediums are given a low rank, because they do not accomplish the specific goal. However, the customer can print an electronic book, which also means that they will be paying for the paper.

Time

Time is a criterion for deciding a solution, because the goal is to have a finished product by May 1st, 2005. Considerations for time constraints include, but are not limited to: type-setting, formatting hoops to jump through, and over-all *perceived* output quality based upon a time limit.

Access

Part of the goal is to share the book's message with other people. How accessible is the finished book to readers? Ranking is based upon Foner Book's real book sales example for the year of 2003. Access depends upon supply and demand. HTML almost always provides supply.

Decision Matrix

	Traditional	E-book	POD	HTML
Price	1	2	4	5
Format	5	2	5	1
Time	2	4	4	5
Access	3	5	3	5
TOTAL	**11**	**13**	**16**	**16**

The decision matrix indicates a tie between POD and HTML. Publishing should be perused through the POD and HTML mediums first, then the e-book, and then, the traditional print.

The question at hand is where to place my emphasis and investment, because I have limited time and money.

Implementation Strategies

- Spend Thanksgiving break writing
- Use iListen software for voice to text
- Use IRIS scanner for data input
- Get friends to help transcribe
- Spend Christmas vacation writing
- Trade work time with Dana for cover
- Write a brief business proposal for Hunter
- Request Amory or Derrick write a "Forward"
- Spend Spring vacation type-setting

Monitoring & Evaluation

There are five phases in the environmental problem-solving process that have been followed thus far. It is relevant to the overall process to briefly recall these phases. I have created a problem and background statement, goal and objectives, and weighed alternatives. The final phase in this process is monitoring and evaluation. Since my purpose is to finish writing and publish a book, there are elements to that process that will be beyond the scope of this class. For example, the book I am creating has a timeline that extends beyond the final meeting of class and ultimately will be published several months from now. However, it is useful to monitor and evaluate progress that has been made along the environmental problem-solving process up to this point.

Thus far, a rough draft of each phase in the environmental problem-solving process has been produced. A final draft will be produced and submitted for grade at the end of the semester. During the decision matrix phase, I discovered that both a Print-on-Demand book and a Website are solutions to publishing a book that equally meet the goal and objectives of my project. I have specified in my objectives that a rough draft of the book will be produced by December 15th, 2004. I am well along the way towards completing this objective, and I am aiming to have the rough draft of the book produced by Monday, November 29th, 2004. This moving up of the

deadline provides an opportunity to send that rough draft of the book out to a select group of reviewers for initial feedback. It is a revised objective to send between 5-10 copies of the book's rough draft to a select group of people who I consider "team members" in my process of writing this book.

I will be sending the rough draft of the book out to these team members on Monday, November 29th, 2004, and expecting a response back by Friday, December 10th, 2004. This gives team members 11 days to review and return their general comments, which can be done via email. To facilitate this process in a rapid manner, I will need to finish the book's rough draft on time, expediently deliver the material, and I will need to write a cover letter that explains what I want team members to respond to and when I expect their response by. In the cover letter it is important that I specify to readers that I need honest feedback and will not be hurt by their constructive criticism.

The team members that will receive the book, read it, and respond quickly, will be considered "Group 1." Other individuals, whom I perceive will need more time to respond to the book (e.g. professors, authors, professionals etc.), will be designated "Group 2" and will be given until February 1st, 2005 to respond. Group 2 will be asked to respond in greater depth. The Group 1 members will be encouraged to respond also as Group 2 members.

Sending out rough drafts of the book in two distinct groups will allow me to get initial feedback on my writing prior to sending my work to Group 2 members—most of whom are less well known to me, and generally have more technical training in the subjects of the book. Upon receiving feedback from Group 1 I will have the opportunity to make changes and form a new draft in order to be more successful in meeting my overall goal. Another benefit of receiving

feedback from Group 1 on December 10th is that I can integrate that feedback more fully into this class project, which will allow a greater sense of completion to the five-phase process.

Further Monitoring

- Organized and transcribed over 150 pages of essay material for rough draft
- Wrote over 32 essays
- Wrote a detailed 23 page outline
- Created a rough timeline
- Worked with numerous team members
- Printed and bound a working RD
- Low success with technological helpers
- Transcribing and writing more labor intensive and time consuming than planned.

From: Anne Padget <apadget@plsweb.com>
Subject: **Re: Healing Earth Outline**
Date: December 15, 2004 12:08:32 AM PST
To: Michael Padget <mmp13@humboldt.edu>
Reply-To: apadget@plsweb.com

Wow, kudos to you! I can see all the work, organization and tremendous thought you have put into this. I truly enjoyed reading it and with just about every other line had questions, thoughts and wanted to know more. I guess that's where the actual book comes in!

I've made a few comments in red throughout the text but due to time (and sleepiness) decided to read thru the whole to get the flavor and make a few more comments here.

What would you say is the main purpose of the book? You offer so many wonderful, creative ideas and tangents I had a hard time putting my finger on it. What do you want folks to get out of the book? Communities are certainly is a main theme of the book and their relationship to and enhancement of individuals, nations and the world. Is your vision of community building the main idea you want to get across? Maybe you have several books here!

You touch on religion(your beliefs?) in subtle and direct ways throughout your outline. I wondered about bringing it in either more fully (what it is and how it impacts what you are saying) or staying in more general realms (values) that are common to all people.

This is the most detailed outline I have ever seen! It will stand you in good stead as you begin to write and expand on your ideas.

That's it for now. I look forward to hearing how your presentation goes.

Love, AAnne

Michael Padget wrote:

> Anne,
> Here it is: a first step. Technically I need this back by tonight. So, all you have is a chance to briefly look it over and get the general idea.
> Please respond by writing right into the document. Color your comments red (or write in a separate document).
> I need an honest assessment of how successful the general content, outline order, and ideas are etc. Constructive criticism only.
> Thank you,
> Michael
>
> P.S. Thank you for the box of great goodies that arrived today.

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Anne Padget http://www.plsweb.com
Sales Operations Manager 530-477-1306, ext.309 Performance Learning Systems
800-255-8412
124 Olympia Park Dr. apadget@plsweb.com
Grass Valley, CA 95945

From: jma50@humboldt.edu
Subject: **Healing Earth Outline**
Date: December 14, 2004 10:57:44 PM PST
To: mmp13@humboldt.edu
1 Attachment, 179 KB

Michael,

I gave the outline a quick glance over, and got a few comments in about the beginning parts (which i read in more depth). Overall it looks good and I like the ideas. I will have to read over the whole thing to be able to make comments about the flow, order etc. Are the numbers meant to denote chapters? How in depth do you intend to get into each topic?

As for the comments I made, i just typed the questions and thoughts that popped into my head as i read your outline; some may fit, others maybe not. i hope that they provide you with some help. let me know if the type of critique I have provided so far is worthwhile. Good luck with tying it together for your class.

If i dont see you before break, have a wonderful time and I will talk to you soon,

Peace, Jeff  outlineEdits.doc (179 KB)

Elizabeth's Comments

Pretty detailed yet succinct at the same time (if that makes any sense). Try to avoid any religious overtones, they're not always appropriate and I don't believe that the communities should be founded on any one faith or any faith at all – religion should be up to the individuals and that might mean that they'll have to practice outside the community but that will prevent conflict of interest for those who don't wish to be a part of any religion or from money being spent on any one faith over the other. Religion's hairy; I'd just avoid the issue in general.

The college concept – that just seems to be a bit incestuous. I believe that post high school education should be sought outside the community or those being raised within it are only hearing the same thing all their lives. Plus there's the problem of funding – I'm assuming it would be a private institution and that means equipment and all sorts of expenses. You also want fresh perspectives being brought into the community, which can happen if students leave for college and return with what they learned. Another risk with a college within the community would be size – people from outside the community would want to attend and you'd have to expand enormously to accommodate them. Another problem would be focus of study. An interdisciplinary college prevents true, honest knowledge of any one subject and waters down the curriculum whereas if students were able to leave the community to go to particular schools for their majors they'll return with much more diversity in knowledge and experience.

Background Information: Research on applicable books
(What have other people done regarding sustainable communities etc?)

"Limits to Growth" Donella Meadows, Dennis Meadows, Jorgen Randers
"Gaia's Garden: A Guide to Home-Scale Permaculture" Toby Hemenway, John Todd
"Cradle to Cradle: Remaking the Way We Make Things" William McDonough, Michael Braungart
"Sustainable Communities" Sim Van Der Ryn, Peter Calthorp
"Designing Sustainable Communities: Learning from Village Homes" Judy Corbett, et al
"The Ecology of Hope: Communities Collaborate for Sustainability" Ted Bernard, et al
"Sustainability and Cities: Overcoming Automobile Dependence" Peter Newman, Jeffrey Kenworthy
"Going Local : Creating Self Reliant Communities In A Global Age" Michael Shuman
"The Soy Zone" Barry Sears PhD
"The New Becoming Vegetarian: The Essential Guide To..." Vesanto Melina, Brenda Davis
"From Eco-Cities to Living Machines: Principles of Ecological Design" Nancy Todd, John Todd
"Operating System Concepts with Java" (6th Ed.) by Abraham Silberschatz, Greg Gagne...
"Small is Profitable" Amory Lovins
"Biopiracy: The Plunder of Nature and Knowledge" Vandana Shiva
"Brittle Power: Energy Strategy for National Security" Amory and Hunter Lovins
"Biomimicry: Innovation Inspired by Nature" Janine M. Benyus
"The Ecology of Commerce: A Declaration of Sustainability" Paul Hawken
"Political Nature: Environmentalism..." John M. Meyer
"Cadillac Desert: The American West and Its Disappearing Water" Marc Reisner
"The Nature of Design" David Orr
"Silent Spring" Rachel Carson
"Earth in Mind: On Education, Environment, and the Human Prospect" David W. Orr
"Ecological Design" Sim Van Der Ryn, Stuart Cowan
"The Expanded Quotable Einstein" Freeman Dyson (Foreword), Albert Einstein, Alice Calaprice
"The Natural Step for Communities : How Cities..." Sarah James, Torbjörn Lahti
"Genetic Engineering in Agriculture" Miguel Altieri
"Artificial Intelligence: A Modern Approach" (2nd Ed.) Stuart J. Russell, Peter Norvig
"The Ecology of Commerce" by Paul Hawkin
"Composting Toilet System Book: A Practical Guide to..." David Del Porto
"The Humanure Handbook: A Guide to Composting Human Manure..." Joseph C. Jenkins

Healing Earth Outline

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December 15, 2004

Version 1.3.1

Forward

Preface

1. Book purpose
    a. To empower people to make positive change in their life (e.g. self-realization)
    b. To help people understand the implications of our interconnectedness
    c. To help people gain clarity regarding the continuum of nature and technology
    d. To motivate people to reflect upon their choices, values, and beliefs
    e. To help people see that the success of social system depends upon people
    f. To get people to begin to visualize the kind of future they want
    g. To get people to think critically about why they want to see a specific future
    h. To take action towards manifesting that vision and begin networking
    i. To magnetize individuals for building sustainable communities world-wide
    j. To generate dialog, debate, and discussion on the topics presented in this book
    k. To inspire people to evolve, refine, and share the ideas in this book
2. Book structure
    a. Individual
    b. Household
    c. Neighborhood
    d. Community
    e. Nation
    f. World
    g. Universe (etc.)
3. Additional resources
    a. Key Concepts
    b. Key Terms
    c. Recommended Reading
    d. Web Links
4. How to navigate this book
    a. Books are most often linear
    b. Websites can be multidimensional
    c. How to make this book multidimensional (e.g. read starting from the end)
    d. Suggestions for how to interactively read

Introduction

1. What is Healing Earth?
    a. A seed (of my own, my professors, influencers, and book reviewers)
    b. An evolving ideology (starting with my own, but evolving into other people's)
    c. A package of lenses for understanding the world
    d. A paradigm on transcending paradigm
    e. A manual for how to live
    f. An interdisciplinary textbook

g. A conceptual framework for change
h. A blueprint for a new society (my own, and a patchwork of people's ideas)
i. A methodology for manifesting balance
j. A vision for a better world and the future
k. A compilation of experiences and hypotheses
l. A framework for personal evolution
m. A roadmap

2. Motivations
   a. The death and destruction of nature
   b. Hope for a better world
3. Goal of Healing Earth
   a. Consciousness, existence, bliss
   b. Freedom, liberty
   c. Health: balance of body, mind, and soul or spirit
   d. To protect and assist in restoring natural systems
   e. To maintain balance between technology and nature
4. A few *a priori* assumptions
   a. The purpose of life is consciousness, existence, and bliss
   b. All biological life evolves toward consciousness, existence, and bliss
   c. Consciousness, existence, and bliss are attainable states
   d. Humans can evolve (consciousness, existence, and bliss) through meditation
   e. Self-realization is not religion
   f. Heaven is here on Earth, in our hearts, here and now, in every moment
5. Understanding the power struggle
   a. Care for the Earth implies altruism, self-sacrifice, and philanthropy
   b. There is a freedom-discipline continuum
   c. We are free to rape the Earth, but that does not mean we should do so
   d. We are free to kill each other, but that does not mean we should do so
   e. Thus, care means not exercising power even though we have it
6. The metaphor of Healing Earth
   a. The title "Healing Earth" is a misnomer in one sense
   b. Healing Earth implies that the Earth is sick
   c. Metaphorically, the Earth is out of balance because of human action
   d. Healing Earth means bringing the Earth back into balance via consciousness
   e. Healing Earth begins by reflecting on the purpose of life
   f. We must recognize that the Earth will heal itself, if we heal ourselves
   g. An appropriate way of thinking about our relationship with all of Earth
7. Fundamental questions
   a. What is the purpose of life?
   b. Where did the universe come from?
   c. Why is there something rather than nothing?
   d. What is the meaning of conscious existence?
   e. What is the role of human beings on Earth, and what should it be?
   f. Your answer to questions like these shapes the Earth, universe, and creation
8. Arbitrary answers
   a. Our own answers may not be provable or disprovable

b. If there is no right answer, can we all agree that there is something?
c. Can we choose an answer that doesn't destroy the Earth and the environment?
d. If our beliefs are arbitrary, can we choose ones that don't destroy the world?

9. Visualizing the future
   a. We need to consciously design the future of our world
   b. We should not let design of the world just happen like sprawl
   c. By being conscious in the process we can design not to design
   d. This means we can place limitations upon our own technology and influence
   e. Societal self-control

10. Key Concepts
    Destruction is easier than creation

11. Key Terms
    Health, sickness, Earth, balance, culture, society, civilization, sustainability, permaculture, metacognitive, paradigm, ideology, metaphor, consciousness, existence, bliss, freedom, altruism, philanthropy, care, homeostasis, ethics, morality, equilibrium, continuum, metaphor…

I. <u>Individual</u>

1. Solutions for Healing Earth begin with the individual
   a. Healing the Earth begins with healing ourselves
   b. We must heal our own body, mind, and soul
   c. As a grossly simplified metaphor, we can think of the Earth as our bodies
   d. Thus, to heal Earth is to heal our metaphorical self
   e. With a few exceptions, we are the only thing we have complete power over
   f. Thus, "We must be the change we wish to see in the world" —Gandhi

2. Discovering how to heal your life
   a. Examining your life, operating systems, paradigms, etc.
   b. Each healing process is unique
   c. Visualization, creativity, etc. (e.g. Goethe quote)
   d. We can use music and poetry as a way to inspire ourselves and others
   e. Learning how to learn (e.g. curiosity, asking why, memorization, connections)
   f. Motivations for learning and change
   g. Gathering support from the universe

3. From center to periphery
   a. The way we relate to, interact, and affect the world
   b. All life relates to it's surroundings from it's center
   c. Microcosm to macrocosm
   d. There can be no circumference when everything relates from its center

4. All living things are engineers, designers, and shapers of the environment
   a. Humans have more power to change the environment than any other species
   b. Environmental power and control insures survival up to a point
   c. Our senses limit our ability to understand actions that have global impact
   d. We are not good at playing God because we are limited by our senses and ego
   e. Collectively we are the architects of this world
   f. You cannot divorce yourself from shaping the world with every action
   g. Perhaps only in breathlessness are you free from impacting the landscape

5. How do we want our species and world to look today and in the future?
    a. How do we want to evolve as a species?
    b. How do we want to affect other species and shape their evolution?
    c. Begin with your life and work out from there
    d. Understand the pattern language metaphor
    e. This book is an exercise for visualizing what we want our world to be
    f. Healing Earth is an exercise in thinking how we can get where we want to be
6. Our desires, likes, and dislikes are the basis for our action
    a. Cause and effect
    b. Action and reaction
    c. We are motivated by pain and pleasure
7. Inner value and belief systems manifest as action, creation, and design in the world
    a. Inner creates outer, outer creates inner
    b. Inscape creates landscape, landscape creates inscape
    c. A differing of values and beliefs tend to be divisive and threatening
    d. Are a diversity of values and beliefs a good thing in the world?
    e. There are many expressions of the same truth; both unity and diversity
8. Desire often leads to consumption
    a. Excessive consumption multiplied by world human population equals disaster
    b. Multiply your actions by 6 billion to understand their impact
    c. Visualization in this way can help you to decipher right action
    d. Desire manifested as consumption is a robber of personal freedom
9. Consumption most often takes away personal freedom
    a. Imprisonment from credit cards and financial debt: neo slavery (capitalistic)
    b. Imprisonment from maintaining and putting energy into things and goods
10. Plain living, high thinking
    a. Happiness is found not in the world of things, but in plain living
    b. Consciousness, existence, and bliss requires high-thinking and little else
    c. High thinking refers to "superior in quality, character, or complexity"
    d. Plain living is appreciation for the simple beauty and complexity of nature
    e. Plain living encourages withdrawal from the senses
    f. The result is greater sensitivity in all interactions with the physical world
    g. Sensitization, desensitization (e.g. culturally induced propaganda, violence)
11. Basic human needs (survival)
    a. Pure air, water, and food
    b. Shelter, clothes, and moderate temperature
    c. Moderate amounts of sunlight
    d. Absence of excessive persistent pain
    e. Health (absence of disease)
12. Intermediate human needs
    a. Love, care, sex, relationship
    b. Friendship, good company
    c. Exercise, mental stimulation
    d. Reproduction (?)
13. Advanced human needs
    a. Consciousness, existence, bliss

b. Light, joy, peace, love, calmness
c. Happiness, well-being

14. Two paradigms for viewing the Earth
    a. Creation is stagnant, passive, dead, unresponsive and unconscious
    b. Dominating view: modern science, technology, separateness, isolation
    c. Creation is dynamic, active, alive, responsive, and conscious
    d. Gaia Hypothesis, John Muir, Aldo Leopold, interconnected, community
15. Needs of the species and the planet
    a. We must recognize that other organisms have biological needs
    b. Our freewill gives us the ability to choose
    c. We can choose to recognize the needs of other species
    d. We can choose to be a part of the world community of organisms
    e. This mean transcending the belief that our fate is to conquer and destroy
    f. We must renounce our role of playing God via engineering on a global scale
    g. This means allowing ourselves to be vulnerable and mortal
    h. We must not be afraid of nature: all life is our family, we are all things
16. The fate-freewill continuum (predetermined events or choice)
    a. Environment shapes our lives in a way that is beyond our control: fate?
    b. We have the ability to shape, control, and effect the environment: freewill?
    c. Species evolve to have greater control over their environmental conditions
    d. Greater control over the environment evolves into "playing God" via design
17. The confusion of our time
    a. We are engineering the environment in order to meet advanced human needs
    b. Advanced human needs cannot be met through engineering or resources
    c. We have confused success with basic human needs for advanced human needs
    d. Our consumption will not satisfy our societies appetite for resources
    e. Consumption is hastened by advertising, promising happiness from things
18. Stepping forward instead of stepping backward
    a. Societal advances have brought convenience, comfort, longer lifespan, etc.
    b. Technology, knowledge, and innovation are truly wonderful
    c. I love washing machines, refrigerators, computers, printers, lights, etc.
    d. I love modern medicine, science, and technology (comfort, convenience, etc.)
    e. However, I do not love the problems these technologies have brought
    f. We have not yet learned how to create a sustainable culture and world
19. We must realize that there is an "enough" point
    a. Unchecked growth leads to the tragedy of the commons
    b. Freedom does not mean the power to purchase however much you want
    c. We will not impose laws limiting economic growth—nor should we
    d. We must realize that the decision for responsibility must be self-imposed
    e. We can place self-imposed limitations upon our freedom (choice)
    f. We cannot pretend that we are not completely reliant upon all of nature
    g. Natural biological systems are far more functional than man made systems
    h. Natural systems are adaptive and resilient (e.g. nested panarchy cycles)
    i. Choice not to create or destroy is a unique human trait (on a large scale)
20. The danger of science and technology (e.g. does technology mean progress?)
    a. Genetic engineering, nanotechnology, and robotics (GNR)

b. Science works on the basis of trial and error
c. Yet, the experiment has now become the Earth and life itself
d. As we use engineering to play God we are bound to make mistakes
e. The problem is that once species become extinct they cannot be brought back
f. We delete ecosystem goods and services that are technologically irreplaceable
g. There are tens to hundreds of thousands of species still being discovered
h. We do not even know the function of so many of Earth's systems and species
i. We are increasingly dependent upon our artificial engineering of the system
j. The experiment is our technological dependence and isolation from nature
k. When the experiment fails, the result will be catastrophe and collapse
l. Because we are engineering Earth systems the result might also be cataclysm
m. Systematic collapse is largely an exponential process

21. Roots of the problem
    a. Unbalanced short-term profit based thinking
    b. Excessive liquidation of natural resources for capital
    c. The belief that it is our duty to conquer (e.g. Ishmael)
    d. God is coming any day to save us from the apocalypse (self-fulfilling)
    e. Unused resources are wasted resources
    f. The Earth was created for humankind to use
    g. Human beings are the most advanced form of life—all else is subservient
    h. Once we have completed conquering Earth we must conquer the universe
22. Enlightened consumerism
    a. Each of us vote with our dollars in a free-market economy
    b. Corporations and businesses respond to consumer choices
    c. Power is money in our system
    d. Increased education can help us to see that the world is highly interconnected
    e. Resources are finite and there are biological limitations and systematic needs
    f. Conservation, efficiency, feedback, and knowledge are crucial
23. People are more important than things (technology and systems)
    a. Human beings are capable of incredible things (we only use 10% of our brain)
    b. Unlike other organisms we are capable of experiencing cosmic consciousness
    c. That does not give us the right to own, consume, and conquer everything
    d. We are more important only because of our capacity for enlightenment
    e. The attainment of human enlightenment need not trump everything else
    f. By working as a citizen in the biological community everything benefits
    g. Nature is more important than human created technology and systems
    h. We are nature if we choose to be (e.g. we can engineer ourselves or not)
    i. Nature is the only system that evolves towards perfection and consciousness
    j. Systems (e.g. laws) and technology will always be imperfect and unresponsive
    k. The system depends upon the people who implement (make up) the system
24. Environment is stronger than will
    a. Physical environment
    b. Social environment (e.g. family, work)
    c. Emotional environment
    d. Mental environment (e.g. learning, school)
    e. Spiritual environment (e.g. belief, ritual, value, etc.)

f. Language and gender constructs
g. Positive or negative affirmation (e.g. self-perception, feedback from others)

25. The need for a positive and healthy environment is paramount
    a. Our religion (values and beliefs) definitely becomes our environment
    b. The environment around us becomes the basis for our religion (values etc.)
    c. Small community enables groups to shape a positive local environment
    d. Good company and like-minded individuals are valuable for self-evolution
    e. Small community can be created as a positive reinforcement mechanism
26. Like a flower
    a. We are born, flower, give life, and fertilize for the next flower
    b. In this way life is miraculous, beautiful, glorious, and sustaining
27. Living in balance
    a. Balance can be perceived in the midst of extremes
    b. Life is a continuum of dualities
    c. Achieving balance is context specific because of relativity
    d. History is cyclical and useful in understanding context and trends
    e. Balance is a dynamic equilibrium
28. Cell and sphere metaphor
    a. Imagine yourself as a microscopic cell
    b. A pattern emerges as life interacts in all scales from microcosm to macrocosm
    c. Imagine that you and others are surrounded by a sphere of energy
    d. Your relationship with other people (etc.) is the intersection of spheres
    e. It is spatially useful to visualize to visualize yourself as a cell and a sphere
29. Places to intervene in a system (Meadow's Article)
    a. Numbers (subsidies, taxes, standards)
    b. Material stocks and flows
    c. Regulating negative feedback loops
    d. Driving positive feedback loops
    e. Information flows
    f. The rules of the system (incentives, punishment, constraints)
    g. The power of self organization
    h. The goals of the system
    i. Mindset or paradigm out of which the goals, rules, feedback structure arise
    j. The power to transcending paradigm (the result is appropriate interaction)
    k. Systems thinking: the whole is greater than the sum of it's parts
30. Helping change the system: towards a permanent culture
    a. Start with yourself, inspire others, be patient, gentle example-based education
    b. Work out from your center
    c. Family, friends
    d. Work, school, colleagues
    e. Neighborhood
    f. Community
    g. Nation, World
31. Key Concepts
    Resistance-surrender continuum
    Pattern language

Freedom-discipline continuum
Fate-freewill continuum
Unity and diversity continuum
Human operating system metaphor
What is the heart of nature?
Survival of the fittest
Self-preservation...

32. Key Terms

Species, individual, epistemology, rational, intelligence, empiricism, rationalism, consciousness, self-realization, relationship, cognitive dissonance, technology, appropriate technology, inscape, landscape, nature, natural, organic, artificial, synthetic, man-made, commercial, technology, fate, free will, choice, survival, conservation, progress, savage...

II. Community

1. Community: a valuable tool with a lot of potential
    a. A powerful tool for transforming cultural constructs and society
    b. Can be used as a powerful economic tool for pressuring capitalism
    c. A self-reinforcing social mechanism
    d. Can be an exceptionally efficient, resilient, and strong system
    e. An appropriate size for cultural reinvention
    f. The most effective political and government scale
    g. A real social security system
    h. A balancing tool for resource use and the environment
    i. A way to speed up feedback loops
    j. Can be a powerful tool for human development
    k. Human development is far more potent than forcing behavior with systems
    l. A way to more quickly evolve consciousness, intellect, etc
    m. Is dynamic, responsive, and versatile
    n. Can function as a gradient between nature and technology
    o. Can be set-up as a system that dynamically adjusts towards equality or equity
    p. Can be a solution to tragedy of the commons on multiple scales
    q. Redirects the power structure from corrupt federal systems to local people
    r. Can be a way to dynamically balance overpopulation problems worldwide
    s. Can transform the current culture and civilization without revolution or war
    t. A tool to actuate appropriate food production worldwide
    u. Can create meaningful and enjoyable work for people
    v. Can act as a firewall for disease, crime, computer viruses, hacking, etc.
2. Appropriate technology (CCAT website)
    a. A way of evaluating a technology
    b. A way of thinking about the social, economic, and environmental impacts
    c. Providing for human needs with the least impact on Earth's finite resources
    d. Is the technology built locally or use local materials?
    e. Can it be built, or at least maintained, with a minimum of specialized training?
    f. Is its use sustainable over many generations? Can we financially afford it?
    g. Does it cause suffering in its manufacturing or use?

h. Fitting the most appropriate tool, system, design (etc.) for the job
i. Technology is applied inappropriately partially because it is driven by profit
j. Current civilization is haphazard rather than being planned or designed
k. Today communities, towns, and cities largely embody unplanned systems
l. The result is pollution, waste (e.g. time, money, energy), inefficiency, etc.
m. Our culture is not being driven by a vision for a sustainable future
n. Our culture is being driven by profit (the bottom line) and consumerism

3. Scale and ratio (spatial design considerations)
   a. Inappropriate scale and ratio is a fundamental problem of our time
   b. Many great inventions or systems are the right idea applied in the wrong way
   c. Civilization has implemented inappropriate scales and ratios all over the place
   d. Appropriate scale and ratio in community is based upon natural system limits
   e. Careful observation of natural systems can give indication of appropriate scale
   f. Working with nature means responsive-dynamic interaction of give and take
4. Ecology and sense of place
   a. Human settlements or communities have an ideal size and spatial arrangement
   b. Some ecosystems and biomes are less appropriate for settlement than others
   c. We must match the needs of human community to the environment
   d. Natural systems will adapt to human settlements, systems, and technology
   e. Human settlements must adapt and work with nature for sustainability
5. Not every location is appropriate for human settlement
   a. Where natural disasters frequently occur (e.g. hurricanes, tsunamis, etc.)
   b. Where there is little water (e.g. deserts)
   c. If food can't be grown or harvested in appropriate amounts
   d. Harmful environmental factors (e.g. thermal vents, volcanic proximity)
   e. Excessive UV radiation (e.g. high altitudes)
   f. We can live in these places and perhaps adapt over time
   g. It might be easiest for our alienated culture to start with attainable goals
   h. Transition to sustainable communities in places that can support our lifestyle
6. Appropriate community design
   a. We must be conscious of the tradeoffs we make in severe climates
   b. Community in severe environments means adaptation and trade-offs
   c. It is important to match lifestyle with a location that can support it
   d. We must assess the goal and values of the people forming a community
   e. Respect that people adapting in different biomes are going to be different
   f. We should use technology (GPS, GIS) to help identify key locations
   g. Extensive study should be done to understand the pros and cons of location
   h. Critical thinking must be used to evaluate appropriate location
   i. Appropriate location evaluation takes time
   j. Designing and building a community is a interdisciplinary team effort
   k. There is an appropriate time and place for community
   l. Community design must be practical
   m. Much of the best property has already been developed
   n. We need creative ways of recycling and transforming (e.g. land trusts, swaps)
   o. Land parcels can be purchased or given in order for contiguous property
7. Small community

a. In general community can be appropriate as a tool on a small scale
b. Population of community should be no more than approx. 1000 individuals
c. Any larger than this and the people have trouble interacting on a daily basis
d. Limiting the scale allows for a more direct democracy
e. Makes more sense for infrastructure (e.g. electricity, water pipes)
f. Keeps initial investment to a more realistic level
g. Enough members to maintain a viable gene pool (optimally 1000 people)
h. Community population should be at least approx. 500 individuals
i. Plan for guests, conferences, and other population fluctuations
j. As a starting point, allot 1 acre agriculturally viable land per person
k. Analysis yields approximate carrying capacity and land appropriateness
l. Allot 1 acre of land per person for buildings and infrastructure
m. Allot 1 acre of land per person for open space and other uses
n. Humans can comprehend the community scale: it's not beyond the senses

8. Intentional community (planned community: "we did it on purpose")
a. Involves conscious, intentional, and continuous design and implementation
b. Design team only helps with the first phase (then hands it off to members)
c. Extends to all areas of community development: infrastructure to politics
d. Means responsibility and understanding of impacts upon the environment

9. Cooperative Community
a. People share and help each other
b. People realize that as a team everyone can benefit and can be cared for
c. Based upon shared, similar, or complementary goals
d. Formed by like-minded people capable of cooperation
e. Cooperation in the community setting involves constructive criticism
f. Involves agreeing to disagree sometimes
g. Based upon the shared values, beliefs, and dreams
h. Cooperation is rooted within consensus orientated process
i. Life is simultaneously cooperative and competitive
j. To base a system or community strictly on either is unrealistic
k. Cooperative community is inherently democratic

10. Sustainable community
a. Sustainable communities are cooperative, intentional, small, and appropriate
b. Includes planning for community evolution and sustainability
c. Includes planning for the community lifecycle and how to recycle
d. How to assemble or build the community, how to disassemble or transform
e. Involves Earth-friendly appropriate materials
f. Does not support non-recyclables (e.g. nuclear waste)
g. Integrates sustainable agriculture
h. Plans and acts with future generation in mind (e.g. seven generations)
i. Sustainable agriculture must be an integral part of sustainable community
j. Aims to produce or create and provide for over 50% of its own needs
l. We can find ways to make community work if conscious people are involved
m. What matters is that people share common ethics, values, and beliefs
n. The basis of compatibility is care for each other (thy neighbor as thy self)
o. That is why before individuals participate they must develop their self

p. People must learn to be considerate, kind, compassionate, etc. (need skills too)
q. Community is not for everyone, but it can work for those who earnestly try

11. Religious community
    a. A community can be formally based upon a single religions
    b. A community can be formally based upon multiple religions
    c. A community can have religious members and non religious members
    d. A community can not be based upon religion at all (formally, informally)
    e. The benefit of religious community is a shared common language and values
    f. A detriment of religious community is dogma, inequitable power hierarchies
    g. Formal religion or value-belief system does not ultimately matter
12. Sustainable agriculture
    a. More than just food: all cultivated resources (e.g. forests, animal products)
    b. A majority of food is locally produced and consumed (i.e. over 50%)
    c. Local organic household gardens for all residents
    d. An emphasis on autopoietic (self-structuring) low maintenance food systems
    e. Small-scale local organic community farms are essential
    f. In community should aim to feed over 50% of residents food per year
    g. Should aim for permacultural forest gardens and forage farming
    h. Should aim towards semi-hunting and gathering
    i. Preserves local seed banks and encourages local seed varieties
    j. Recycles and exports excess food to other communities and people in need
    k. Does not use pesticides, herbicides, or genetically modified seeds, etc.
    l. Does not use growth hormones, antibiotics, pesticides in or around animals
13. Zoning: move out from the center
    a. The goal isn't to divorce us from natural systems (e.g. an isolated bubble)
    b. Integrate human settlement into nature better
    c. Concentric rings of development from most (center) to the least (periphery)
    d. The center zones of community are the most engineered and designed
    e. You move out from the community center to completely unmanaged land
    f. A gradient from human settlement to wilderness
    g. Have at least 5 miles of unmanaged "natural" land between communities
    h. Have one community center and multiple villages surrounding that center
14. Infrastructure
    a. Infrastructure is expensive
    b. If people cooperate and be creative we get much more utility per capita
    c. Our current system is extraordinarily electricity dependent
    d. Infrastructure is currently centralized on the wrong scale—thus weak
    e. A number of resource optimizations naturally occur at the community scale
    f. There are enough people, but not too many; land is the right size, etc.
15. Electricity
    a. We need a community grid system that is self-sufficient
    b. This grid system would be made up of self-reliant home producers
    c. The community grid system would be a grid inter-tie system
    d. Other communities would also be grid centers
    e. Thus we have a centralized but decentralized power system
    f. We get the benefits of both systems: strength, versatility, control, price

g. Plus community grid systems would be entirely renewable based electricity
h. The community grid can sell excess electricity to other communities

16. Water
    a. A premise of a sustainable community is a clean and reliable water source
    b. Because the community is small maintenance is more manageable
    c. Management quality can be higher
    d. Wells and catchments can be distributed throughout the community
    e. A water network between sources can provide quality and control
    f. Innovative filtration systems can be installed in each village (i.e. clusters)
    g. We can use innovative filtering systems (e.g. sand filters) on community scale
    h. Shorter overall piping system (point-to-point)
    i. Less chemicals needed, yet same level of expertise and monitoring
17. Housing
    a. Simple, small, comfortable, and efficient homes
    b. Local and natural building materials, recycled materials in high quantity
    c. Green architecture: well designed, passive solar, unique and innovative homes
    d. Designed from 10-30 templates (cuts down on cost, no quality compromise)
    e. Homes built all at once
    f. Result: lower overall cost, wholesale pricing, assembly line system advantage
    g. Balances efficiency, cost, and reduces environmental impact
    h. Access to products you can only buy at high volume, or high entry price
    i. More efficient shipping and delivery of building and infrastructure materials
    j. Community members can cooperate to build the entire community quickly
    k. Bulk housing means each house can be small and simple, but quality
    l. Benefits both the house owner and the building company (needs big projects)
18. Project scale
    a. Sustainable community development is versatile in project scope
    b. At the bare minimum we can build a sustainable home
    c. Next is a neighborhood, then a village (each scale up has increase benefits)
    d. A community is made up of multiple villages, businesses, community center
19. Village
    a. Ten villages to a community
    b. 100 people per a village
    c. Villages have their own political representatives
    d. The system favors direct democracy, and small group consensus
    e. Some infrastructure will be more appropriate at the village level
    f. Apply the most appropriate system to the most appropriate scale
    g. Each village can have it's own high quality shared laundry mat
    h. Each village can have a common area and meeting space, etc.
    i. Personal and/or village vegetable gardens and orchards
    j. Ideally, a maximum of 15 minute to walk to the village center
    k. A small shared village computer lab (10 computers)
    l. Perhaps a shared village entertainment system
20. Community
    a. Benefits from whole systems design, implementation, and maintenance
    b. Circular business park surrounding small village center gathering area

c. Community library (with shared community computer lab)
d. Community college, grade, and high school
e. Perhaps a yoga shared yoga studio, fitness room, or weight lifting gym
f. Community auditorium, playing field, etc.
g. 10 political representatives per a community
h. Community determines its own constitution and political structure
i. System favors direct democracy, and representation based upon consensus
j. Instant run-off voting may be appropriate for electing community leaders

21. Communication
    a. Favors community control and privacy (rather than corporate control)
    b. PBX phone system, community servers, etc.
    c. Fiber-optic high-speed Intranet system within community
    d. Single access point to the Internet with high security, and firewall protection
    e. Enables a small team of IT experts to safeguard community privacy etc.
    f. Difficult to manage communication system on a larger scale with high quality
    g. Small scale networks often don't necessitate good IT professionals
    h. Multiple benefits possible because of a community communications system
22. Transportation
    a. Community center designed to be pedestrian friendly (no cars)
    b. Road footprint is minimized by good upfront design
    c. Since roads are expensive, less road means lower overall cost
    d. Private road maintenance costs often prohibitive for individuals
    e. When the investment is shared by community cost becomes more reasonable
    f. Bike paths and alternative transportation must be the predominant mode
    g. Alternative technology (e.g. hydrogen) more appropriate at community scale
    h. With innovation we can come close to a nearly sustainable transport sector
23. Community design and construction [what I want to do for my career]
    a. A community is designed by a professional interdisciplinary team
    b. The team works with investors, members, government, contractors, etc.
    c. The design team manages the community building process in phases
24. Community member ownership (oversimplified version)
    a. Sustainable community is built very much like a house only more complicated
    b. The overall sustainable community has a single price tag (i.e. one pie)
    c. The cost of a community can be paid for in a variety of ways
    d. One option is for people who want to live there to pay their part of the cost
    e. We might estimate the cost for one person to be 300,000 dollars
    f. That money purchases you one share of the community
    g. You become a member of the community
    h. You can sell your share and leave the community at any time
    i. The key is that the community is not built until the entire pie is paid for
    j. The money must be paid upfront for all of this to work
    k. This way if everyone pulls out (community collapses) equitable shared loss
    l. It's just like high-risk stocks in this sense, or the real-estate market
    m. There is financial incentive for members to make the community work
    n. Realize that once a community is built it has significant added value over time
    o. Such a system encourages individuals to help invest and create community

p. And, can help individuals make money at the same time
q. Of course, some individuals will want to invest and then remain members
r. A single person to a single share (important for an equitable system)
s. Members may gift or pass down shares to relatives (or others) in their will
t. New born children must have their own share paid for (if parents stay)
u. Essentially, children get a loan from their parents which they pay back
v. If children don't decide to stay their parent can sell the equity to another
w. In this way, children are not obligated or confined, parents are responsible

25. Community investment
    a. Accept gifts (set-up a non-profit for tax-exempt status, divide money evenly)
    b. Ideally we want real people to stand for the money that is invested
    c. If members are to borrow, they should have a significant down payment
    d. Investors might pay for a share then be paid back by members over time
    e. Members who have money can help less fortunate individuals
    f. If a member defaults on a loan and must leave, their share goes for sale
    g. The member gains any value added regardless (just like a house mortgage)
26. House and land ownership
    a. Once a member pays for a share they get a fair slice of almost everything
    b. If the community is 3000 acres, they get 3 acres of land
    c. Hypothetically: 1 acre for living space and gardening per person
    d. Your one acre is private land, the other 2 acres are public land
    e. 1-acre public space (e.g. businesses, community center, schools, etc.)
    f. 1-acre public open space (e.g. farms, forest, wetland, wilderness, etc.)
    g. Access to public community facilities
    h. A comparable unit of housing (housing needs matched to individual)
    i. One benefit is an accounted balance for public and private land
    j. Currently our culture is not good at having land held in common
    k. We do not mix public and private land and functions very well
    l. Keep in mind that the sustainable community is privately owned overall
    m. Members equally share U.S. government imposed land taxes
    n. Community land tax exemptions through converting open-space to land trusts
    o. Further tax benefits incurred from protecting wetlands and caring for forests
27. Local Community government (only members may participate)
    a. Recall that members devise their self-government
    b. The American Government system might work better on this scale (if…)
    c. The important thing is that the system can be evolved but not corrupted
    d. It is collectively up to the people of the community to prevent corruption
    e. A benefit of equal shares is equal voting weight and equitable social structure
    f. Unlike our current U.S. government, members can truly force accountability
    g. The purpose of government is to serve the people—correct scale is the key
    h. The community government plays a small but important role
    i. Balance will be maintained by private community systems and entities
    j. Certain things should be maintained by a community government body
    k. Utilities and infrastructure are best maintained by the tool of government
    l. A few businesses might be most appropriately run be government
    m. If profit is made by a (local) public business then money is shared equally

n. Example: local power grid sells excess power, members make a profit
o. If loss is incurred, members equally share the bill (a fluctuating tax)
p. Thus local public businesses are given incentive to be efficient
q. It is to the community's advantage to have prepaid for businesses
r. Prepaid for businesses occur in the original overall community investment
s. Public businesses (cooperatively community owned by all members)
t. Fair prices for goods/services are encouraged by direct equal member impact

28. Businesses (only members may participate in ownership)
    a. On the most basic level, members run cottage industries from their homes
    b. Community entrepreneurs can use their 1-acre public space for business
    c. The business is privately owned, and is an investment of the individual
    d. There is no tax (only real Feds) upon local businesses from local government
    e. Records must be kept by private businesses: investments, profits, losses, etc.
    f. Records submitted to community government and transparent to the people
    g. An individual or individuals are responsible for profit or loss incurred
    h. Private-public business allows for cooperative-competitiveness
29. Community banks and lending libraries
    a. Community lending institutions may be developed to serve people's needs
    b. Such institutions can be private or public ventures
    c. A benefit is that your money won't be lent out for immoral purposes
    d. Community can create it's own currency, backed by real value
    e. Communities must be careful to keep strings untangled
    f. By this I mean that member shares and lending institution must not mix
    g. If kept clean, community banks have the ability to help people prosper
    h. Community banks can help new communities be built
    i. Yet we must be aware of financial dangers, and place appropriate limits
30. Community population and age structure
    a. Limiting community population to 1000 is a benefit in disguise
    b. We match approximate land carrying capacity with human population
    c. Applied world-wide, we may have a big solution to environmental destruction
    d. Goal is to optimize the resource to land to people ratio in an appropriate way
    e. We must keep an ideal and sustainable age distribution over time
    f. All this must be done amidst dynamic membership changes
    g. Key is cooperation and voluntary choice for the greater good of all
31. Sustainable communities will evolve over time
    a. Hypothetically, communities will become more efficient
    b. Knowledge will improve as a diversity of communities are created
    c. Refinement in system structures will occur
    d. The first community built (of the kind I describe) will be an important step
    e. The world will be watching
    f. Yet the designers must let go, they must resist the urge to control
    g. If community fails we must let it fail, and learn something from it
    h. Then we must try again and again
    i. Recall that the benefit of the small scale is quickened feedback loops
    j. Negative feedback loops drive the system towards refinement
    k. People should not be slaves to systems

l. Human created systems must be slaves to all people
m. The greater the consciousness of people, the fewer rules are needed
n. These systems will not reach perfection
o. Only the people can reach perfection
p. Only then will community systems reach their zenith
q. At that point, I suspect there will be far less need for systems and rules
r. That point may not be for quite some time
s. Need goes beyond morality or environment and extends to survival
t. As we run out of oil and old systems collapse, communities are security
u. Communities can connect people and help generate meaningful happy lives

32. Communities must be like mature forests
    a. When one tree goes down another replaces it
    b. The fallen tree fertilizes so that a mature forest can emerge
    c. This is the panarchy model for social and ecological systems
    d. Some sustainable communities are bound to collapse (just like trees)
    e. If society is made up of communities, when one fails others can help rebuild
    f. If society is a monoculture (like today) collapse brings catastrophe
    g. A civilization's collapse (because of rigidity) is like clear-cutting the forest
33. How sustainable community will spread
    a. People in the present society can make money at it
    b. Sustainable communities are a business opportunity
    c. A "shares" system is versatile and encourages growth of new communities
    d. Investors make money on the money they lend
    e. Successful community members can become investors for others
    f. Can be appropriate linkage of private and public, business and environment
    g. Community members can make money on added value (real estate)
    h. Members get a functional, comfortable, safe, profitable community
    i. People have increased grass-roots control and power
    j. Because of self-government, governments can make and enforce fewer rules
    k. People still have the option of living in traditional towns and cities etc.
    l. The world can benefit environmentally
34. Key concepts
    Scale and ratio
    Unity-diversity equilibrium
    Cooperative competitiveness…
35. Key terms
    Community, evolution, population, systems thinking, autopoietic, allopoiesis, cooperation, competition, cooperative-competitiveness, appropriate technology, intentional community, panarchy, sustainable community, agriculture, semi-nomadic, semi-agrarian, sustainable agriculture, eco-village, artificial selection, natural selection…

III. Nation

1. Transforming society without revolution
    a. Sustainable communities can work within the current system
    b. A power restructuring occurs through self-government

c. In a capitalistic society part of the power people have is their money vote
d. Sustainable community requires highly educated and skilled people
e. Community gives people a viable alternative to our society's ways
f. It gives us enough power to hold other parts of the system accountable
g. The system currently resists people holding it accountable
h. We depend upon the very system we're rebelling against
i. Individuals have to play the game in order to rebel against the game

2. End Neo slavery
   a. Being bound to a system that we're dependent upon reduces our freedom
   b. Part of the problem is that to make progress most people go into debt
   c. We become slaves to the system when we don't have the option to break free
   d. People who don't play the game become disenfranchised and dependent
   e. People who resist the system bang their head up against a wall (not always)
3. Methods of control
   a. Corporate personhood
   b. Corporate media
   c. Government propaganda
   d. Lies and fear
   e. Misinformation and lack of education
   f. Inequitable wealth structure, etc…
4. The difficulty of overthrowing a corrupt government
   a. The rules have changed since the founding of the United States
   b. Our weapons and technology have advanced in ways we never dreamed of
   c. It is no longer possible to overthrow oligarchy with small arms
   d. The right to bear arms bears little significance today
   e. Governments and people in power have a nearly undefeatable military
   f. Actual revolutions are inappropriate: we can't defeat tanks and war planes
   g. We've been ushered into a new and complicated era
5. Warning signs: (Martial law, big brother, mark of the beast, etc.)
   a. The dominant society keeps control both actively and passively
   b. The rich have incentive to keep the poor and weak poor
   c. The threat of terrorism gives the fear necessary to control the herd
   d. We are bound by a dilemma: security-control and freedom-privacy
6. The dominant society
   a. A concept that applies also to people, communities, and countries etc.
   b. The most violent, dominating, and controlling entity holds the most control
   c. Peaceful nations (e.g. Tibet, Native Americans) are subdued and controlled
   d. Dominating nations build empires, colonize, invade other lands, etc.
   e. "You cannot simultaneously prevent and prepare for war" —Gandhi
   f. The irony is that peaceful nations are forced to take up arms or be eliminated
   g. Dominant society ensures it's own dysfunctional value-belief system
   h. Small communities are part of how to prevent these problems (e.g. security)
7. Natural boundaries
   a. Nations should be based upon natural ecological boundaries
   b. Nations should not be based upon arbitrary political boundaries
8. There cannot be a separation of church and state

a. Value-belief structures (based on religion) are tied to leader's decisions
b. The dominant value-belief system will be expressed prevalently overall
c. Sustainable community can help bring equality throughout the world
d. Differing beliefs from community to community can be better respected
e. Nations made up of sustainable communities can better respect other nations
f. The dominant society and groups problem can be eliminated

9. Organizations have the inclination to survive
    a. All foundations, governments, corporations, etc. fight to survive
    b. Relationships: symbiotic, cooperative, and parasitic
    c. Corporate personhood
10. Community is a check and balance to government and corporations
    a. The corporation cannot survive as an organism without profit
    b. Sustainable community personhood can powerfully deny profit (boycotts)
    c. Decrease in corporate power decreases corporate influence on government
    d. Sustainable community can have the power of a corporation
    e. It is a new systematic societal control branch
    f. We may not be able to sway the whole culture
    g. Yet, sustainable communities may be able sway the culture collectively
    h. Community is highly organized and empowered people power
    i. Sustainable community is the missing branch of power in this country
    j. A representation of the people in systematic terms
    k. Can better hold both the government and corporations accountable
    l. Can change the political power structure, voting dynamics, campaigns
    m. The government and corporations were designed to serve people
    n. The people are not served when the environment is destroyed
    o. The whole of all sustainable communities are greater than their parts
11. Island biogeography metaphor
    a. Organizations must be spatially arranged like islands
    b. Water around the islands symbolizes untouched wilderness
    c. The pattern language of sustainable community is honeycomb
    d. A solution that balances wilderness (nature) and human settlement
    e. The pattern language also must be applied for cities and all organizations
12. Visualizing transformed cities
    a. People primarily live in sustainable communities not cities
    b. Cities function as societal centers of confluence (conflux) and divergence
    c. Entertainment, conferences, political gatherings, etc.
    d. Intended to be temporary living spaces (e.g. hotels)
    e. Transportation centers (i.e. hubs)
    f. Technical nutrient recycling interaction sites with other organizations
    g. Largely inorganic, sterile, and closed systems
    h. Intended to be dependent and subordinate to sustainable communities
    i. Success depends on revised transportation, energy, communication system
13. Visualizing a new national transportation system
    a. High-speed trains are travel at 300 mph (not as fast as airplanes)
    b. Trains used to connect the hex-honeycomb pattern of organizations
    c. Train transport for Inter-community and organization travel

d. Innovative design enables full speed travel from point to point
e. Mag-Lev trains used nation wide
f. Propelled by sustainably generated electricity from the grid
g. All routes designed for low environmental impact
h. A majority of routes are tunnels with top of tunnel flush with the ground
i. Tunnels are tube like enclosures with transparent top which is open to light
j. Where routes are not (semi) tunnels they're elevated with small footprint
k. Wildlife passage is uninhibited and enclosed tunnels are safer for high speeds
l. Organizations (e.g. communities, corporations) own all their own trains (pods)
m. Government only construct and maintain the transport routes (tunnels/stations)

14. Visualizing a new energy grid
    a. Both centralized and decentralized
    b. Both interconnected and disconnected
    c. Allows for simultaneous autonomy and dependence
    d. Corporations can still produce power for sale (energy farms)
    e. Sustainable communities are primary producers
    f. Excess electricity can be sold to buyers via the grid
    g. Government only maintains and standardizes the grid
    h. Buried infrastructure along Mag-Lev transportation routes
15. Visualizing a new communication system (Mini Mag Lev mail pilot project also)
    a. Minimizes wireless communication emphasis (e.g. radio stations, phones)
    b. Fiber optic network to all sustainable communities and organizations
    c. Fiber optic network trails the same Mag-Lev and energy grid route (buried)
    d. Public infrastructure, private services
16. Visualizing a transformed government
    a. Appropriate use of government as a national and international tool
    b. Construction, maintenance, standardization of transportation infrastructure
    c. Construction, maintenance, standardization of overall energy grid
    d. Construction, maintenance, standardization of overall communications system
17. Visualizing transformed corporations
    a. Held in check much more directly by the people via sustainable communities
    b. Advanced communications allows workers to telecommute from community
    c. Advanced transportation allows for appropriate commute from community
    d. Spatially and geographically distributed like communities
    e. Corporations predominantly not located in cities (less than 5% maybe)
    f. Big business and corporations form business park communities
    g. Industry can efficiently and resourcefully recycle it's own waste
    h. Designed to be close loop closed system technical nutrient systems
18. Key Terms

    Democracy, tyranny, communism, oligarchy, hierarchy, fascism, dictatorship, dominant, tragedy of the commons, autonomy, decentralized-centralization, technical nutrients. …

IV. Whole Earth

1. We live in a metaphorical bubble
    a. In terms of our survival, we live in a closed system: planet Earth

b. Pollution threatens freedom everywhere (for all species)
c. A clean environment is a right to all species
d. We are nature dependent
e. We are dependent on the Earth, it is not dependent upon us
f. Destroying nature is literally like committing suicide
g. There is no where to run and nowhere to hide (not space, not biosphere 2)
h. We must accept that we're all species and systems are interconnected
i. We must responsibly act as citizens of the Earth

2. Globalization
   a. A complex force of hyper-connectivity in human created systems
   b. Sustainable community can help build a Hyper-hypo connectivity balance
   c. Communities can be used as a way to balance the forces of globalization
3. Balance
   a. Homogenization (pop culture) and unique culture and tradition
   b. Science and technology with religion and belief
   c. Knowledge and wisdom
   d. Etc.
4. Biosphere 2 proved that an artificial life support system is highly flawed
   a. Biospherics was originally the study of glass enclosed systems
   b. I'd like to claim the word biospherics for what it really should mean
   c. The study of interacting spheres of life (there are many levels to this)
   d. Biospherics becomes the study of relationship between entities and systems
   e. Appropriate application of enclosed systems is technical nutrient cycling
   f. Man made toxins, pollution, etc. should be contained to closed systems
   g. It is completely inappropriate to enclose biological systems in glass
5. One world government?
   a. There are appropriate and inappropriate uses for a world governing body
   b. A world governing body can only be appropriate if equal representation exists
   c. Currently, countries are represented in proportion to the money they have
   d. Standards and privacy can be protected by a world government body
6. Dangerous Institutions
   a. World Bank, NAFTA, WTO, IMF are inappropriate (how their set-up now)
   b. Such institutions are fatally flawed and must be radically changed/abandoned
   c. Transnational corporations are currently very destructive
   d. Corporations can be a legitimate and appropriate service to people
   e. However, radical change needed
7. Conclusions
   a. Why is caring for the environment and each other such a chore?
   b. We already have many of the pieces for a sustainable society and world
   c. Healing the Earth begins with healing ourselves (the best leverage point)
   d. A sustainable world depends upon first setting up sustainable communities
   e. It is not good enough to just have one sustainable community, nation, etc.
   f. The entire planet must be sustainable for community to be truly sustainable
   g. This must be a cooperative process, we're in this together
   h. Many problematic areas and systems will dynamically readjust and balance
   i. What is needed is innovation, trust, hope, financial gifts, and investors

Key Concepts

Hyper-hypo connectivity…

Key Terms

Closed-loop systems, globalization, trial-and-error, knowledge, wisdom…

V. Beyond Earth

1. Space exploration
    a. We should not explore space until we have a sustainable world
    b. Once we have a balanced system then we can explore new worlds
    c. Otherwise we will systematically manifest the same problems elsewhere
    d. I would expect we wouldn't be welcome elsewhere until we mature
2. The final frontier
    a. Self-realization is the final frontier
    b. We might discover wonderful new worlds
    c. But, what we are searching for will always be within our own heart and mind

Key Terms

Space trash, colonization…

VI. Evolving Healing Earth

1. Interactive website
    a. Allows people to evolve Healing Earth in an interdisciplinary and cooperative fashion
2. Dwapara Design
    a. My business: a team of professionals dedicated to designing, building, and managing the sustainable community implementation process
    b. Open source software project helping others to design sustainable community
    c. A website for focusing the personal needed for building community
3. Resume Nexus
    a. A website that helps people find people (e.g. professionals)
    b. Helps individuals to network their skills in the context of sustainable communities and find opportunities
4. Community Networking Tool
    a. Website for connecting sustainable community investors
    b. A virtual community building and envisioning tool