



ERS 301 Sustainability Thought, Practice and Prospects

Fall 2019

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Organization Lectures: Thursdays 6:30-8:20pm, EV2 2002
Tutorials: Tuesday 9:30-10:20 am, HH 259
Tuesday 10:30-11:20 am, AL 209
Tuesday 1:30-2:20 pm, HH 124
Tuesday 4:30-5:20 pm, HH 119

Description and Rationale

Humans with their big brains now dominate the planet. This is a mixed accomplishment. Some of the dominant trends of human activities and their effects are positive (e.g., uneven but generally greater infant survival, life-expectancy, literacy, access to goods and services, and concern about the pain and suffering of others). But other major trends (the combination of ecological stresses, climate change, persistent poverty and expanding inequality) are towards deeper unsustainability. For your own foreseeable interests, and certainly also for those of your children and grandchildren, and for many other life forms on the planet, we need to reverse the negative trends and find positive as well as practical ways to live more lightly on the planet, more equitably among ourselves, and better all round.

All that entails considerable intentional change – at a global as well as local and regional scale and for the long run as well as to deal with immediately pressing matters. Because we have not done much intentional global change before, we will have to rely to some extent on trial and error experimentation. But it would help to have initial working answers to some basic questions:

- What ideas and practices could provide the foundations for lasting wellbeing (help us to live better with each other and the rest of the biosphere while also respecting the enormous complexities and uncertainties involved)?
- What are the most promising ways to push the changes needed to move towards more sustainable ways of living in a complex world?

In this course, we will be taking a broadly historical approach to these questions. The idea is that before leaping to answers, we should learn what we can from what we've

done in the past. We should see what abilities and possibilities we've demonstrated, what mistakes we've made, what we've learned, what might be realistic as well as desirable in the future.

Accordingly, this course is about the history of ideas and practices, but the purpose is to illuminate what to do now and in the future. There is no assumption that the findings will point to a single set of answers. Exploring a diversity of understandings and strategies for change is probably a good thing, so long as we seek a better-informed diversity, better understanding of the grounds for and doubts about the big assumptions commonly made in sustainability circles of various sorts, and commonly made by individuals deciding what to do with their lives.

Five starting points

The course begins with the following observations:

- Pursuing sustainability is as much a social and economic challenge as an ecological one; political, philosophical, psychological and spiritual aspects are often at play as well. Sustainability involves all these considerations and their many and complex interconnections. That includes all of our relations with each other and with nature.
- Societies, past and present, have adopted many different packages of relations among people and with nature, with different basic working assumptions about what defines the good human life, how to design appropriate socio-economic and political arrangements, and how "nature" works and what that entails for living as part of it.
- In most societies, the assumptions involved are rarely presented and discussed openly. Often, they are just accepted as the way things are. The resulting ways of seeing are embedded in and reinforced by society's main social traditions and institutions (customs and religion, government and economy, science and technology, etc.).
- Each particular package of assumptions leads to a particular way of seeing the world that inevitably influences how people act. A way of seeing the world (including humans, nature and their relations and possibilities) functions as a kind of filter on reality. It favours some perspectives and possible solutions while obscuring or devaluing others.
- We are now in the unique historical position of being at least to some extent aware of many different possible ways of seeing and treating the world. That position gives us a basis for examining the package of assumptions that prevails in our society today. We can compare our package to other options that have been tested in other places and times. Most importantly, we can, if we wish, create new combinations of ideas and practices that are better suited to current challenges, opportunities and understandings.

Readings

The main readings for the course are listed in the full course syllabus and almost all are posted on the ERS 301 LEARN website. For the exceptions, URLs are provided. Participants are also encouraged to draw from other outside sources of insight (not just readings) for the course work, including the tutorials and written assignments. To access

the course website, login at <http://learn.uwaterloo.ca/> with your WatIAM/Quest username and password.

More readings are listed here and provided on the course website than you are likely to read. Participants in the course are expected to read several of the required readings for each week *before* the lecture session. Otherwise the lectures will be obscure and the discussions will not be as richly informed. Each participant is to focus on at least two readings for the tutorial preparation notes. For the report assignments, you should give most of the weekly readings at least a very quick skim and concentrate on two or three meaty ones.

The readings are listed in a very rough order of importance and are meant to provide a diversity of perspectives, but you are free to use your own judgment about whether to focus on the first few readings on the list or pick what's most intriguing to you. You are, however, expected to be generally familiar with the material in the readings and lectures, and to demonstrate this familiarity in your assignments and seminar participation.

Assignments and grading

The formal assignments are as follows:

- to participate knowledgeably and actively in the weekly tutorial sessions, with recognition also for participation where feasible in the lecture sessions – to be graded in two sets – participation for weeks 1-5 (10%) and participation for weeks 7-12 (10%);
- to help lead tutorial discussions in one week (5%);
- to prepare and submit one-page preparation notes for all but the first and last sessions – to be graded in two sets – notes for weeks 2-6 (10%) and notes for weeks 7-11 (10%); and
- to prepare and submit two reports – one generally covering weeks 1-6 (25%) and one covering the whole course but with emphasis on weeks 7-12 (30%).

Tutorial (and lecture session) participation

Each student is expected to participate actively in the tutorial discussions (and in the lecture sessions, to the limited extent possible with so many students).

Our first priority in the tutorials is to encourage everyone to be involved thoughtfully in the discussions. Evaluation of participation will be based more on the quality than the extent of contributions. Evaluation of participation quality will take seven criteria into account:

- understanding of the issues, concepts and historical developments introduced;
- evident familiarity with the readings (particularly the ones individually assigned);
- careful listening and thoughtful reflection before making comments;
- communication skills (clear and constructive questions, comments, etc.);
- synthesis, integration and drawing connections between and among immediate subject matter and ideas, issues and insights from the course materials or elsewhere;
- creativity in ideas, in drawing connections and in presenting/illustrating concepts; and
- identification and reasoned evaluation of the assumptions and values underlying the positions discussed.

There will be bonus marks for humour.

Tutorial leadership assignment

Generally, the tutorial discussions will explore the implications of what we can learn from the past for what we can and should do to enhance prospects for wellbeing in the future. More specific issues and questions are set out below in the details about each session.

Most weeks of tutorials, selected participants will be responsible for helping to lead the discussion. Each participant must take a leadership role for one tutorial session. Normally, sessions will have two or three leaders (in addition to the TA). The leadership roles may vary and are subject to discussion with the TAs. The role may include participating on a panel, leading and reporting on breakout group discussions, running a role-playing or time-travel exercise, or some other option that is on-topic and does not disturb people trying to think in adjacent rooms. Participants will be asked in the tutorials on Tuesday, September 10 to pick a week for their leading role. The leaders' particular responsibilities will be determined no later than the preceding week's tutorial session.

In all cases, the tutorial leaders will be expected to facilitate participative opportunities for all, not to take over the discussion.

Preparation notes assignment

For each of sessions 2-11, each participant is required to prepare and submit a preparation note. Each note is to be one page single-spaced (about 400 words maximum), not including references. It must be posted in the relevant dropbox on the course Learn site before midnight on the Monday following the lecture for sessions 2-11 [that includes session 6 even though there will be no tutorials for that session]. The notes are to be graded in two sets – notes for weeks 2-6 and notes for weeks 7-11.

Recognizing the limited possibilities of one page, each note

- must include
 - a broad response (with reasons) to the general tutorial question(s) for that session (see below), and
 - a report and consideration of at least one more specific idea or practice or change, etc., from the readings and/or lecture that you found particularly compelling as a basis for your response to the tutorial question(s);
- must draw from the lecture and at least two of the session's readings;
- may be largely in point form but must be comprehensible to others; and
- must include proper scholarly references to the sources used.

The notes must be posted in the relevant dropbox for the week and your tutorial group on the course Learn site before midnight on the Monday following the lecture for the relevant session. Please remember to include your name and identify the session for which the note has been prepared.

The two reports

Two reports are assigned – one for each of the main sections of the course. Broadly, both reports are to provide answers to the core question for the course: what can we learn from the past about what we should do now? More specifically the two reports are to address

the core questions about what positive lessons we can draw from human experience so far:

- What ideas and practices seem to have fit reasonably well with the requirements for sustainability at least in their times (providing reasonable wellbeing for people without compromising the broader environment and prospects for future generations, while dealing successfully enough with the surrounding complexities and uncertainties)?
- What can we learn from the limitations of ideas and practices and changes that seem to have been unsuitable for sustainability purposes (maybe just because they were incomplete or misapplied)?
- What are the implications for what we should be doing (or at least considering and paying attention to) today?

Report 1 is about sustainability-related ideas, practices and implications from weeks 1-6. Report 2 is about lessons from the whole course, but with some emphasis on sustainability-related ideas, practices and implications from weeks 7-12. Both reports must draw from the readings and lectures, and may draw from your own preparation notes, the tutorial discussions and other related materials. The particulars of the two report assignments are set out below.

These are short reports. Given that the course is covering a sizable chunk of the human experience, you cannot discuss everything. Be concise. In choosing what to include in the reports, give particular attention to what you consider to be most significant, surprising and illuminating for building a better understanding of possible answers to the big questions set out at the beginning of this syllabus.

In each of these assignments, you have options for form and style as well as substance. For the scholarly purposes of this course, however, you must provide suitable supporting references to the readings, lecture material and other sources in conventional scholarly referencing or in footnotes to the report. Remember that you are, at least implicitly, making an argument that should have sound logic supported by evidence.

Your reports can be in the form of a conventional academic essay. However, other options are also acceptable, and may be more realistic and possibly more fun. Options include the following:

- a briefing paper for a major institution (government body at any level, board of a private corporation or civil society organization, etc.),
- a series of linked blogs,
- a pitch for or transcript of a documentary radio program, or screenplay for a film (with some indication of the accompanying visuals),
- a somewhat unique valedictory speech for your graduation,
- another option with the permission of the instructor(s) or TAs.

You may use different formats for the two reports.

In whatever format(s) you choose, the reports are exercises in professional writing of some kind. Ensure that your readers will get the conclusions and know there is reliable backing evidence (including as evidenced by proper supporting references). Feel free to incorporate illustrative examples. You are being asked to address very big issues and cover very long periods and huge diversities of particular issues, experiences, understandings and explanations in short reports. You must focus on the high points, but

your audience must be able to understand the practical significance of the points you make.

Depending on the option chosen, the report format will vary. Nevertheless, every submission should include

- the topic, your name, your tutorial group time and the name of your tutorial leader at the top of the first page (a separate title page is not necessary);
- reasonable adherence to the conventions of grammar, whatever “report” format you choose; and
- proper bibliographic references to written materials, lectures and other sources you’ve used, applying a recognized referencing style [for some of the format options, footnotes may work better than in-text citations and a references list]; for referencing style guides see [http://ereference.uwaterloo.ca/display.cfm?categoryID=15&catHeading=Citation/Style Guides](http://ereference.uwaterloo.ca/display.cfm?categoryID=15&catHeading=Citation/Style+Guides)]

As is the case with all writing assignments, participants are expected to be familiar with the rules against plagiarism and aware of the penalties for offences. See the note on academic offences, below.

All written assignments are to be submitted to the appropriate 301 course website dropbox by 11:59 pm on the deadline date. In the interests of equity, penalties will be assessed for late submission of written assignments. The grade given for a written submission will be reduced by .5 for each day late (a paper assigned 19/25 if received on time will get 18.5/25 if one day late), except in cases of documented illness or other extraordinary inability.

Reports grading rubric

The grading of the reports will be based primarily on evidence of

- attention to the purposes and particulars of the assignment and familiarity with (or mastery of) the concepts and sources, ideas and implications covered by the course, including in the lectures, tutorial sessions and readings (though discussion of other relevant books, articles and/or other reliable sources is welcome) (40%);
- coherence (or brilliance) of argument, including insightful understanding, logical flow, emphasis on most significant points, effective use of evidence (with appreciation of its limitations), integration of ideas, attention to implications, and appropriate credit to sources (40%); and
- clarity (or elegance) of writing, taking into consideration the structure and organization of thoughts and argument, effective linking of broad ideas to special illustrations or examples, proper grammar and syntax, concise presentation, and ease of understanding (20%).

In the second report, we will expect increasing concentration on identifying connections or conflicts among the ideas considered.

The reports assignment details

First paper (covering weeks 1-6. From the dawn of time to the modern world)

Your first report is to focus on what we can learn from how the people struggled with the problem of sustainability through most of the human record (up to about 150 years ago). That includes what basic ideas and practices were tested, what were their strengths and

limitations, what big changes happened and what we can learn from all that. The relevant material relates to practical approaches to making a living, getting along with each other and dealing with the rest of the environment and all the associated complexities, but it also includes how people understood the world and their place and role in it.

The big issues to address in this first report are as follows:

- What were the core the ideas and practices of the hunter/gatherer/forager cultures that prevailed throughout most of the human record? How did people in these cultures understand their place in the world, and proper interactions with each other and the larger environment?
- What changed and what remained the same for the early farmers and initial agricultural civilizations that gradually supplanted the hunter/gatherer/forager cultures?
- How did the rise of the ideas and practices that came with and from modern science and economics change how people understood their place in the world, and how they interacted with each other and the larger environment?
- In what ways did these shifts enhance and/or diminish prospects for lasting wellbeing for the people involved?
- From a sustainability perspective today,
 - what are the most attractive indigenous, ancient and modern ideas and practices that are likely still applicable today in some form (recognizing that many circumstances are now quite different)?
 - what are the main overall lessons for thinking about how to make a better world for your grandchildren?

In addressing these big issues, you should consider what ideas and practices were most fundamental, which ones were (or were not) substantially different from those that they replaced, what changes in ideas and practices were or were not likely to work for the people involved over the long term (help them to survive, have fulfilling lives and maintain sustainable relations), and what human inclinations, capacities and limitations are revealed by the nature and results of these ideas and practices.

That will involve some digging into what the long period from the dawn of time to the rise of modern science and economics tells us about what people can do, what qualities of life in community and environment seem necessary for humans in any culture or time period, and what sorts of ideas, institutions and practices might be both feasible and desirable now.

You may find it useful to approach these big questions in part by identifying and focusing on one or more major issues – for example, how pre-modern and modern ideas have conflicted and combined, or what the main similarities and differences are between the transition to agriculture and the transition to modern scientific and economic practices. Or you might adopt one or more illuminating perspectives – for example, implications for women, or poor people, or ecosystems. Recognize, however, that any such approach should assist and illuminate coverage of the big issues, not replace it.

Feel free to rely heavily on illustrative examples. You are being asked to address a set of very big issues and cover a very long period and a huge diversity of particular cultures, in a short report. Moreover, depending on the style of “report” you are preparing, your work will need to be understandable and lively, and that may be helped by engaging illustrative examples.

Requirements: The report can be a maximum of 1500 words (not including references). The submission is due in the relevant dropbox on the course Learn site before midnight on Tuesday, October 15.

Second paper (covering weeks 7-12: Being the dominant species)

Your second report is to focus on how answers to the big questions – about wellbeing, living successfully with others, living viably in the biosphere, and dealing with uncertainty and complexity – changed and were challenged and tested in the past 150 years or so. As with the first report, the objective is to identify the major lessons for application in pursuing sustainability now and in the future. You should include matters addressed in your first report, but give particular attention to the ideas, critiques, applications, and happy and tragic results over the past couple of centuries, which we have explored in the final six weeks of the course.

The final report question is as follows:

- what basic positive lessons should we draw from our historical experience and apply to reversing dangerous current trends and building societies and cultures that could be generally desirable, just and at least potentially viable over the long run?

[Note that this question overlaps with the question for the first and final tutorial sessions.]

For the purposes of this report, you might think of the past as having revealed and tested a variety of options. These options have included different ideas and practices packaged in different cultures, institutions, ways of making a living, ways of defining good lives, successful communities, desirable futures. In turn, these options have rested on different basic assumptions – about the essential character, capacities, inclinations and potentials of human beings, as individuals and communities; about the nature and purpose of the larger environment; and about proper relations between individuals and communities, humans and the biosphere, us and them, now and before and yet-to-come.

In response to the broad question above, your final report must address the following:

- what we can conclude, however tentatively, from the historical record about the options and underlying assumptions that seem most promising (and least dangerous);
- whether adopting such assumptions and associated ideas and practices would entail fundamental changes to prevailing basic approaches to how we organize our lives, economies, societies, and governing institutions, etc.;
- what historical (or other) grounds you can give to support your conclusions, and how confident you can be that your position is sound; and
- a concluding illustrative example of how application of your package of lessons could affect sustainability-related initiatives in some area (e.g., sustainable food and agriculture systems, poverty elimination, ecological restoration and biodiversity preservation, climate change mitigation, sustainability-based urban (re)design, human rights and distributional justice, energy sustainability, ...) at some scale or scales (neighbourhood to planet).

Requirements: The report can be a maximum of 2000 words (not including references). The submission is due in the relevant dropbox on the course Learn site before midnight on Tuesday, December 10.

Evaluation summary

Participation 1	10% (weeks 1-5)
Participation 2	10% (weeks 7-12)
Tutorial leadership	5%
Preparatory notes set 1	10% (weeks 2-6)
Preparatory notes set 2	10% (weeks 7-11)
Report 1	25% (covering weeks 1-6, due October 15)
Report 2	30% (covering weeks 7-12, due December 10)

The course schedule

Part 1: From the dawn of time to the modern world

Session 1. Sept 5	Ideas and sustainability: practical choices and underlying ideas for sustainability; different views of the world and different routes to saving it
Session 2. Sept 12	Foundations: hunter-gatherer societies and modern western societies; differences; explanations for the shift from hunting and gathering
Session 3. Sept 19	New understandings: philosophy, religion and the roots of the Western tradition
Session 4. Sept 26	The rise of modern science: nature as knowable and manipulable
Session 5. Oct 3	The rise of modern economics: markets, individuals and a world of commodities
Session 6. Oct 10	Modernity overall: the union of science and economics and a new image of humans and the rest of the world
October 17	Reading week [NO CLASS]

Part 2: Being the dominant species

Session 7. Oct 24	Conquest: the domination of nature and the colonization of the globe
Session 8. Oct 31	Early critics: conservative, feminist, socialist and romantic responses to modern industrial society
Session 9. Nov 7	Progress and its discontents: reason, technology and doubts in the twentieth century
Session 10. Nov 14	Greens: the first century of environmental critique and response
Session 11. Nov 21	Sustainability: the integration of environment and development under conditions of complexity
Session 12. Nov 28	Lessons: implications of an inquiry into the historical and cultural roots of our current environmental situation and our possibilities for change

Important UW policies and services on key course-related topics

Mental Health: The University of Waterloo, the Faculty of Environment and our Departments/Schools consider students' well-being to be extremely important. We recognize that throughout the term students may face health challenges – physical and/or emotional. *Help is available.* Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services is an inclusive, non-judgmental, and confidential space for anyone to seek support (<http://www.uwaterloo.ca/counselling-services>). They offer confidential counselling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

Disabilities: AccessAbility Services (<https://uwaterloo.ca/accessability-services/>), located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. See <http://www.uwaterloo.ca/academicintegrity/>. Every student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his or her actions. Please review the material provided by the university's Academic Integrity office specifically for students: <http://uwaterloo.ca/academicintegrity/Students/index.html>. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating), should visit the on-line tutorial at <https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial>, and seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean.

When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline: <https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-71>.

Within the Faculty of Environment, those committing academic offences (e.g. cheating, plagiarism) will be placed on disciplinary probation and will be subject to penalties that may include a grade of 0 on affected course elements, 0 on the course, suspension, and expulsion.

Grievances: Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy 70, Student Grievance: <https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70>.

Appeals: A decision made or penalty imposed under Policy 70 (Student Petitions and Grievances) on matters other than a petition, or Policy 71 (Student Discipline) may be appealed if there is a ground. A student who believes he or she has a ground for an appeal should refer to Policy 72 (Student Appeals) www.adm.uwaterloo.ca/infosec/Policies/policy72.htm.

Religious observances: A student needs to inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

Communications with Instructor and Teaching Assistants: All communication with students must be through either the student's University of Waterloo email account or via Learn. If a student emails the instructor or TA from a personal account they will be requested to resend the email using their personal University of Waterloo email account.

Intellectual Property: Students should be aware that this course contains the intellectual property of their instructor, TA, and/or the University of Waterloo. Intellectual property includes items such as: lecture content, spoken and written (and any audio/video recording thereof); lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides); questions or solution sets from various types of assessments (e.g., assignments); and work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

Recording lecture: Use of recording devices during lectures is only allowed with explicit permission of the instructor of the course. Only audio recordings will be permitted. Posting of videos or links to the video to any website, including but not limited to social media sites such as: Facebook, Twitter, etc., is strictly prohibited.

Weekly readings and tutorial topics

Part 1: Beginnings

Session 1. September 5 Ideas and sustainability: practical choices, underlying assumptions; different views of the world, different routes to saving it

Introductory clips, etc.:

Claire L. Evans, "The evolution of life in 60 seconds,"

<https://www.youtube.com/watch?v=YXSEyttbIMI>

World History For Us All, *History of the World in Seven Minutes*,
<http://www.youtube.com/watch?v=4pnmZalx9YY>

Core readings:

- Lester Brown, "Learning from past civilizations," *Grist* (July 2009),
<http://grist.org/article/2009-07-29-learning-from-past-civilizations/>.
- Geeta Vaidyanathan, "In Gandhi's Footsteps: two unusual development organizations foster sustainable livelihoods in the villages of India," *Alternatives Journal* 28:2 (spring 2002), pp.32-37,
gramvikas.org/uploads/file/Publications/In_Gandhis_footsteps.pdf
- Steve K. Katona, "Worms, germs and sperms: celebrating our shared past and common future," Commencement address, College of the Atlantic, 2009.
- Ronald Wright, *A Short History of Progress* (Toronto: Anansi, 2004), pp.32-35.
- United Nations Sustainable Development Knowledge Platform, *Sustainable Development Goals*, on-line, multi-layer site, <https://sustainabledevelopment.un.org/?menu=1300> [not on the course Learn site]; also check out the background information provided in United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development* (New York: UN, 11 August 2015), esp. paragraphs 14-38 (pp.4-8).
<https://sustainabledevelopment.un.org/post2015/transformingourworld.>]
- Kate Raworth, "Want to get into the doughnut? Tackle inequality," Exploring doughnut economics (2014), <http://www.kateraworth.com/2014/10/16/doughnut-inequality/>
- WWF et al., *Living Planet Report 2018: Aiming Higher*, esp. pp.22-25,
https://wwf.panda.org/knowledge_hub/all_publications/living_planet_report_2018/
- World Business Council for Sustainable Development, *Vision 2050: a new agenda for business – in brief* (Geneva: WBCSD, 2010), esp. pp.2-6, full report available at <https://www.wbcd.org/Overview/About-us/Vision2050/Resources/Vision-2050-The-new-agenda-for-business>

Tutorial questions:

Is it not difficult to establish that what humans are doing today on this planet is unsustainable. Unfortunately, choosing appropriate responses is not so easy. What should be done, how quickly, by whom and with what resources? Not surprisingly, the most common responses focus on modest adjustments to current ideas and practices – seeking greater sustainability through more or less conventional economic and technological means (using economic motives and developing more advanced technologies for much more efficient resource use, less pollution, etc.).

In contrast, others believe it is necessary and desirable to replace central aspects of the prevailing political economy (e.g. consumerism, increasingly ambitious technologies and artificial environments, market globalization, inequitable distribution of benefits, etc.) with fundamentally different alternatives (e.g. nega-growth and regenerative economies, redistribution of power and opportunity, more local and/or global control, small-scale technologies, voluntary simplicity, etc.). Some sustainability activists rely heavily on use of the existing economic system, while others try to subvert and transform it. Some work to change laws, policies and educational systems, while others promote conviviality, spirituality and aesthetics. Some seek alliances with corporate leaders, while others work with the poor. And so on.

On the surface, these are just disagreements about what strategies for change will work best. But at the roots are basically different ways of seeing the world, different understandings of what is desirable and possible, different objectives and priorities as well as different strategies for change. The readings about current unsustainability and possible responses present a variety of alternative ways of seeing people, the environment and proper relations between them.

The varieties reflect different answers to the two big interrelated core questions for this course:

- What ideas and practices could provide the foundations for lasting wellbeing (help us to live better with each other and the rest of the biosphere while also respecting the enormous complexities and uncertainties involved)?
- What are the most promising ways to push the changes needed to move towards more sustainable ways of living in a complex world?

And these two big questions together pose a third:

- How differently do we need to think and act, and how differently do we need to design our institutions and order our priorities so we can move towards a world that is happier and more sustainable, etc.?

Throughout the term we will develop a better historical foundation for answering these questions. But we will begin by establishing the starting positions of the participants.

Over the next twelve weeks, your views may be confirmed or altered. We will see. The questions will be considered again in the last two tutorials. Here at the beginning we are only looking for initial positions, and short answers. Since these are very big questions, offering temptations for elaborate responses, it is perhaps wise to start with a few basic suggestions. Your tutorial question for this week is as follows:

- What are the two most important changes that are needed in ideas and practices in the world over the next 50 years to start moving us to a more durable, just and agreeable future? (Please restrict yourself to changes that could conceivably occur.)

Session 2. September 12 Foundations: hunter-gatherer societies, agriculture and sedentary civilizations; explanations for their differences, their successes and failures, their evolution and their legacy to us

Introductory clip

John Green, The Agricultural Revolution: *Crash Course World History* #1,
http://www.youtube.com/watch?v=Yocja_N5s1I&feature=player_embedded

Core readings:

Clive Ponting, *A New Green History of the World* (London: Penguin, 2007), “Ninety-nine percent of human history” (on hunting, gathering and foraging), pp.17-23; and “The first great transition” (on agriculture), pp.36-42; also recommended “Destruction and survival” (on soil and forest depletion), pp.67-77 [all of pp.19-115 is excellent].

James. C. Scott, “Introduction,” *Against the Grain: A Deep History of the Early States* (New Haven: Yale University Press, 2017), pp.1-36.

- Hugh Brody, *The Other Side of Eden: hunters, farmers and the shaping of the world* (Vancouver: Douglas and McIntyre, 2000), pp.11-15.
- Jill Oakes, "Raw seal and the spirit of plenty," *Alternatives Journal* 15:1 (1987), pp.78-79.
- Bronislaw Malinowski, *Argonauts of the Western Pacific* (1922), excerpt on gift exchanges, from *Lapham's Quarterly* 8:3 (2015), pp.97-98.
- Vandana Shiva, *Monocultures of the Mind* (London: Zed, 1993), pp.12-15 and 19-21.
- Thomas Hobbes, "Of the naturall condition of mankind as concerning their felicity, and misery," in *Leviathan* (1651), pp.84-88.
- Margaret Alic, "Goddesses and gatherers: women in prehistory," in *Hypatia's Heritage: a history of women in science from antiquity to the late nineteenth century* (London: The Women's Press, 1986), pp.12-19.
- Eman M. Elshaikh, "Social, political and environmental characteristics of early civilizations," <https://www.khanacademy.org/humanities/world-history/world-history-beginnings/birth-agriculture-neolithic-revolution/a/why-did-human-societies-get-more-complex>
- Carol R. Ember, "Hunter-Gatherers (Foragers)" in C. R. Ember, *Explaining Human Culture*. Human Relations Area Files (2014), <<http://hraf.yale.edu/hunter-gatherers-foragers/>>
- Mary E. Clark, *Ariadne's Thread: the search for new modes of thinking* (London: Macmillan, 1989), pp.179-181.
- J. Donald Hughes, "Kakadu, Australia: the primal tradition," in *An Environmental History of the World: humankind's changing role in the community of life* (London: Routledge, 2001), pp. 19-22.
- Jared Diamond, "To farm or not to farm," in *Guns, Germs and Steel: the fates of human societies* (New York: Norton, 1997), pp.104-113.
- Ronald Wright, *A Short History of Progress* (Toronto: Anansi, 2004), pp.14-18, and 40-45.
- Laurel Sefton MacDowell, "Encountering a new land" (excerpt), in *An Environmental History of Canada* (Vancouver, UBC Press, 2012), pp.11-20 [part of a longer piece on the course website].

Additional readings:

- Joachim Radkau (trans. Thomas Dunlap), "In the beginning was fire," and "Humans and animals," in *Nature and Power: a global history of the environment* (Cambridge U. Press, 2008), pp.41-55.
- Paul Nadasdy, "'Property' and aboriginal land claims in the Canadian Subarctic: some theoretical considerations," *American Anthropologist* 104:1, March 2002, pp.247-261.
- Nicole Gombay, "Shifting identities in a shifting world: food, place, community and the politics of scale in an Inuit settlement," *Environment and Planning D "Society and Space"*, 23 (2005) pp.413-433.
- Steven Robins, "NGOs, 'Bushmen' and double visions: the #khomani San land claim and the cultural politics of 'community' and 'development in the Kalahari,'" *Journal of Southern African Studies* 27:4 (December 2001), pp.833-853
- Richard B. Lee and Richard Daly, "Foragers and others," *The Cambridge Encyclopedia of Hunters and Gatherers* (Cambridge: Cambridge University Press, 1999), <http://www.udel.edu/anthro/ackerman/hunter.pdf>

Marshall Sahlins, "Notes on the original affluent society," in Richard B. Lee and Irven DeVore, ed., *Man the Hunter* (Chicago: Aldine, 1968), pp.85-89; from <http://www.udel.edu/anthro/ackerman/economics.pdf>.

Tutorial questions:

Different ways of seeing the world entail different ways of treating it. And probably vice versa. Perhaps the biggest contrast has been between how hunters-gatherers-foragers and people in modern industrial societies see and treat the world. Unfortunately, this comparison is not easy to make. We live in a modern industrial society and might be reasonably familiar with the basic ideas that our modern society reflects and encourages – about human nature, the good life, how nature is to be treated, etc. But these are not matters often discussed in everyday conversation and it is hard to get a perspective on something when we are in the middle of it.

Getting a good sense of the hunter-gatherer-forager worldview is also difficult, though for other reasons. For perhaps 95% of the human experience, life was in hunting and gathering communities. That reality is mostly past and those few communities that remain are vulnerable, perhaps atypical, and in any event more or less seriously affected by their relations with the industrial world. Moreover, it is hard to imagine a way of seeing the world that is very different from our own.

The Vandana Shiva reading gives some sense of the contrast. The other readings present a variety of perspectives on hunters, gatherers and foragers. Hobbes' piece, from 1651, provides an early and influential version of what came to be the dominant western viewpoint – that the shift from hunting and gathering communities to modern industrial society was a move from ignorance to knowledge, from childhood to maturity, from subjugation (esp. to nature and custom) to freedom, from poverty to comfort. Also in the usual depiction, the departure from hunting, gathering and foraging was entirely beneficial and chiefly led by technological advance, which until recently has typically been credited to certain unknown men who were particularly inventive leaders. Margaret Alic corrects the crediting only men part. But the darkness to light view of human progress rests on a particular set of misunderstandings of history and prehistory, and on a particular set of conclusions or assumptions about humanity, nature and their interrelations.

There have long been alternative views. Rousseau's concept of the noble savage is one example. More recently, anthropologists and aboriginal people themselves have been presenting challenges to the conventional position and raising the possibility that hunting and gathering cultures may represent humanity's best arrangements in society and in nature. Some such accounts are included in the readings for this week.

Clive Ponting's version of the story suggests a mixed package with humans driven to spread more extensively and exploit more ambitiously for many reasons, including mistakes and external pressures, and that the eventual development of sedentary agricultural and industrial civilization was at best a mixed and perilous achievement. James Scott's more recent account is more inclined to emphasize the limitations and fragility of rising of the agricultural civilizations.

Among the questions raised by all this are the following:

- Which of these various depictions of hunting, gathering and foraging, and the shift to sedentary agriculture and more "civilized" life, seems most plausible and reliable?
- What are the implications if this depiction is correct?

The standard modern view of progress from hunting, gathering and foraging is part of a larger picture of history as a more or less continuous line of upward advancement, led by technology, consequent economic improvements and related gains. An alternative at the other end of the spectrum would present hunter-gatherer-forager communities as the ideal and natural human social and ecological arrangement and consider moves away from it to be largely regrettable. Between these two options lies a range of possibilities seeing various combinations of gains and losses.

In light of this spectrum of possibilities, several big questions follow for discussion in the tutorials this week (you may not get to all of them in any detail):

- What did "lasting wellbeing" mean for hunter-gatherer-forager people and what were their strategies for maintaining it?
- How did they deal with the enormous complexity of getting along with each other and with their surrounding environment?
- What led to the change away from the hunter-gatherer-forager society into herding and farming and how did that affect their conception of wellbeing and ways of getting along with each other and with their surrounding environment?
- What else was lost and/or gained in the transition from small farming to agricultural city-states and empires?
- What are the implications for today concerning how humans can define the good life, get along with each other and with the natural environment, and make big changes?

Session 3. September 19 New understandings: philosophy, religion and the roots of the Western tradition

Core readings:

Ronald Wright, *A Short History of Progress* (Toronto: Anansi, 2004), pp.65-79.

J. Donald Hughes, *An Environmental History of the World: humankind's changing role in the community of life* (London/New York: Routledge, 2001), pp.30-33 and 52-59.

The Holy Bible, Genesis, Chapter 1, especially verses 20-28 [the King James Bible's version of all of Genesis is on the course website]; Psalm 8; Psalm 102, verses 25-28; and Matthew, Chapter 6, verses 19-21 [bonus item: Hope Mennonite Church, Winnipeg, 350 Earth friendly verses in the Bible

http://www.youtube.com/watch?v=a7TFBqUmfNw&feature=player_embedded].

Thomas King, *The Truth about Stories* (Toronto: Anansi, 2003), pp.10-25.

The Rig Veda, "Creation Hymn," translated by V.V. Raman.

The Bagavadgita, excerpt, "The be all and end all," excerpt, *Lapham's Quarterly* 7:4 (2014), pp.92-93.

Mary E. Clark, *Ariadne's Thread: the search for new modes of thinking* (London: Macmillan, 1989), pp.194-204.

Merlin Stone, "Return of the Goddess: new thoughts on gender," in *Journal of Wild Culture* 1:3 (May 1988), pp.26-27.

Stephanie Lahar, "Roots: rejoining natural and social history (excerpt)," from Kent Peacock, ed., *Living with the Earth: an introduction to environmental philosophy* (Toronto: Harcourt Brace, 1996), pp.313-316.

Lynn White, Jr., "The historical roots of our ecologic crisis," *Science* 155:3767 (March 1967), pp.1203-1207.

Tutorial questions:

The ideas, institutions and practices that characterize the modern western approach to the world are the products of a long evolution. It is often said that the foundations of western thinking lie in the Abrahamic religious traditions (Judaic, Christian and Muslim) and in the development of Greek rational philosophy. The Abrahamic and Greek foundations arose more or less separately but were combined in the middle ages. As we will see, these "foundations" were only part of the story – many more influences were involved in the rise of modern science and economics, industrialization, adoption of the idea of progress, etc.

It will be difficult to evaluate the relative significance of the Abrahamic and Greek contributions until after we have examined later influences and have developed a clearer understanding of the fundamental ideas that now rule the world. However, we can learn much by comparing the Abrahamic and Greek approaches with those of preceding traditions (hunter-gatherer-forager, early farming, ancient city/farming civilizations), the various eastern traditions (Buddhist, Hindu, Taoist, Confucian, etc.), and prevailing modern views. The following questions may help to guide your thinking and reading, as well as the tutorial discussions:

- What were the main understandings – about how humans should behave in society, about how we should see and treat the environment, and about the complex workings of the world – at the centre of the Abrahamic religions and Greek rationalist philosophy? How well do these understandings fit together?
- How did these understandings differ from the understandings that prevailed before (e.g., in hunter-gatherer-forager societies) and from the understandings that characterize Hinduism, Buddhist and other major religions that had less influence on the development of the western tradition?
- What aspects of the Abrahamic/Greek combination provide openings for more exploitive treatment of other people and the non-human environment, and what aspects would seem to discourage such an attitude? (Be sure to consider the two traditions' views about the environment, the accumulation of wealth, the exercise of power, and the nature of the good life.)
- Which do you think are more likely to affect behaviour that is socially and environmentally responsible: religious or philosophical ideas about the human place in nature, or religious or philosophical ideas about the pursuit of wealth?

Session 4. September 26 The rise of modern science: nature as knowable and manipulable

Core readings:

Hugh Kearney, *Science and Change 1500-1700* (Toronto: McGraw-Hill, 1971), pp.17-48.

Morris Berman, *The Re-enchantment of the World* (New York: Bantam Books, 1984), pp.34-35.

Yasmeen Mahnaz Faruqi, "Contributions of Islamic scholars to the scientific enterprise," *International Education Journal* (2006), pp.391-399.

Carolyn Merchant, "Dominion over nature," from *The Death of Nature: women, ecology, and the scientific revolution* (San Francisco: Harper and Rowe, 1980), pp.164-191, esp.164-173.

James R. Gaines, *Evening in the Palace of Reason: Bach meets Frederick the Great in the Age of Enlightenment* (New York: HarperCollins, 2005), pp.45-52.

Lewis Mumford, "The monastery and the clock," *Technics and Civilization* (London: Routledge, 1934), pp.12-18.

Lynn Steen, "The measure of reality," notes based on Alfred W. Crosby, *The Measure of Reality: quantification and western society 1250-1600* (Cambridge: Cambridge University Press, 1997), <http://www.stolaf.edu/other/ql/crosby.html>.

Patricia Fara, "Magic," in *Science: a four thousand year history* (Oxford: Oxford University Press, 2009), pp.121-128.

Patricia Fara, "Europe," (medieval science) in *Science: a four thousand year history* (Oxford: Oxford University Press, 2009), pp.81-91.

Edward Dolnick, *The Clockwork Universe* (New York: HarperCollins, 2011), "The end of the world," pp.13-19; "God at His drawing table," pp.34-42; "A play without an audience," pp.90-96; "All in pieces," pp.97-102.

For curiosity:

Nicholas Copernicus, *On the Revolutions of the Heavenly Spheres* (1543)
<http://webexhibits.org/calendars/year-text-Copernicus.html>

Leonardo Da Vinci, *The Notebooks* (1519ff), <http://www.gutenberg.org/ebooks/5000>

Andreas Vesalius, *De Fabrica* (1543), especially the dedication of Charles V,
<http://vesalius.northwestern.edu>

Tutorial questions:

The two immediate foundations of the modern worldview lie in the ideas and practices of modern science and modern economics. The two are interrelated. They arose together, were pushed by overlapping historical forces and events, and were influenced by a similar set of other influences. Probably they are best considered as parts of a package.

But this week as a first step, we can examine the essentials of the scientific contribution, especially that of the mechanical tradition, and try to identify what changes in thinking and action led to it and what contribution made to development of the modern worldview.

The relevant questions include the following:

- How did the mechanical tradition differ from competing scientific approaches to understanding and treating nature, especially those of the organic and magical traditions, especially as a way of dealing with the evident complexity of the world?
- How did the new scientific view of nature and its purpose build upon or depart from the Abrahamic and Greek traditions?
- How was the rise of the mechanical view linked, ideologically and practically, with other aspects of thought and life (e.g., religion, economic organization, gender politics, social hierarchies) at the time?
- How crucial does the mechanical tradition in science seem to have been in the formation of our modern way of seeing the world and to what extent do the central concepts of the mechanical tradition still prevail?

For us now, and for tutorial discussion, the big question is:

- What was gained and what was lost in the rise of the mechanical, scientific worldview and what are the implications for how we should think about science and about the nature and use of scientific knowledge today?

Session 5. October 3 The rise of modern economics: markets, individuals and a world of commodities

Core readings:

Robert L. Heilbroner, *The Worldly Philosophers*, fourth edition (New York: Simon and Schuster, 1972), pp.16-39.

Adam Smith, *The Wealth of Nations*, (originally published, 1776), Book I, chapter 2.

John Locke, "The second treatise of government (excerpts)," (originally published, 1690) from Lori Gruen and Dale Jamieson, eds., *Reflecting on Nature: readings in environmental philosophy* (New York: Oxford, 1994), pp.20-21.

Karl Polanyi, *The Great Transformation* (Boston: Beacon, 1957), pp.43-47.

Mary E. Clark, *Ariadne's Thread: the search for new modes of thinking* (London: Macmillan, 1989), pp.261-268.

Erica Schoenberger, "The origins of the market economy: state power, territorial control and modes of war fighting," *Comparative Studies in Society and History* 50:3 (2008), pp.663-691.

Carolyn Merchant, "Dominion over nature," from *The Death of Nature: Women, Ecology, and the Scientific Revolution* (San Francisco: Harper and Rowe, 1980), pp.177-180 [also included in readings for week 4]

Avner Offer, "Between the gift and the market: the economy of regard," *Economic History Review* 50:3 (1997), pp.450-476, <http://www.nuffield.ox.ac.uk/economics/history/paper3/gift3.pdf> [you can skim much of this one and get the main ideas].

Mark Casson and John S. Lee, "The origin and development of markets: a business history perspective," *Business History Review* 85 (Spring 2011), pp.9-37 [also skimmable].

Tutorial questions:

The second immediate foundation of the modern worldview was provided by the rise of the market as the organizing framework for economic exchange and, increasingly, the organizing framework for ideas about human character, social organization, wellbeing, improvement, etc.

As noted last week, the rise of markets and acceptance of the pursuit of gain happened over the same period as the rise of modern science and acceptance of the pursuit of domination and control. This combination of changes was not just coincidence and it will be important to consider how the ideas and practices involved were connected and mutually supporting.

First, however, we should be clear about the essentials of the new economic approach, why it arose and what effects it had:

- What were the underlying ideas of modern market economics concerning the basic nature of human beings, proper relations among people, the role of the natural environment, and the foundations for human wellbeing? And how did these ideas deal with the challenge of complexity?
- How did an economy that expanded the role and range of market exchange differ in practice from previous approaches to organizing production and allocation?
- In what ways did the ideas underlying the new economic approach build upon or depart from the Greek and Abrahamic traditions?
- Why did markets and the pursuit of gain expand and win acceptance? What factors were influential? Was this change the product of an inevitable process, or an historical accident, or something else?
- How was the rise of markets linked, ideologically and practically, with other aspects of thought and life (e.g. science, religion, gender politics, social hierarchies) at the time?
- How crucial does the rise of market economic seem to have been in the formation of our modern way of seeing the world and to what extent do the central concepts of market economics still prevail?

For us now, and for tutorial discussion, the big question is similar to last week's question about modern science:

- What was gained and what was lost in the rise of modern market economics and what are the implications for how we should think about the pursuit of wealth, the roots of consumer behaviour and the nature of "the good life" today?

Session 6. October 10 Modernity overall: the union of science and economics and a new image of humans and the rest of the world

Core readings:

Anthony Flew, "Introduction," to T.R. Malthus, *An Essay on the Principle of Population*, A. Flew, ed. (Harmondsworth: Penguin, 1970, originally published 1798/1830), pp. 17-31.

Donald Worster, "The ascent of man," from *Nature's Economy: the roots of ecology* (New York: Doubleday, 1979), pp.170-179.

J.C. Greene, "Darwinism as a world view," (excerpt) from *Science, Ideology and World View* (Berkeley: University of California Press, 1981), pp.128-135.

Frederick Taylor, *Scientific management* (originally published 1911), Project Gutenberg eBook (excerpts).

John Ralston Saul, "Taylor, Frederick" and "Taylorism" in *A Doubter's Companion* (Toronto: Penguin, 1994), pp.279-281.

Tutorial questions [actually there is no tutorial for the session because of reading week, but the questions may be of interest in any event]:

Malthus, Darwin and Taylor were in many ways quite different individuals whose work, stretching from the end of the eighteenth century into the beginning of the twentieth, addressed quite different immediate questions. Each in his own way, however, attempted to apply the principles of modern scientific thinking to matters of human social, economic and political importance.

There are two main general questions here:

- What were the central principles of modern scientific and economic thinking that the three attempted to apply to human subjects?
- How well did that work?

In considering these questions, it may be useful to consider three things: what were they trying to learn or illuminate? how did they use a “scientific” research method? what big assumptions did they make about nature and/or people (and the complexities of both).

There are repugnant aspects to the conclusions drawn by Malthus, Darwin and Taylor and their followers. Their efforts were used (and in some places still are being used) to justify social policies and industrial practices that were, and are, evidently inhumane and insensitive, if not utterly heartless and cruel. This begs the following questions:

- Are these the result of inappropriate scientific and economic principles or poor application of these principles?
- Do they suggest there is something basically wrong with the scientific project involved (trying to identify the natural laws applying to humans and identify their social and economic implications)?
- Do human motivation and behaviour reflect the operation of natural laws of human nature in roughly the same way as billiard balls obey the rules of Newton's physics?
- In Frederick Taylor's case, is there anything fundamentally misguided about his application of a mechanical view of human motivation to industrial management?
- Is Taylor's objective (the efficient delivery of material satisfactions) necessarily the central concern of political and economic activities in industrial societies?

All of these questions can and should be considered in the tutorial discussion, but you might start with this one:

- how well do the assumptions about human beings made by Malthus, Darwin (or his followers) and Taylor describe you (and if not so well, what is missing or misguided in their depictions)?

October 17

Reading week [NO CLASS]

Part 2: Being the dominant species

Session 7. October 24 Conquest: the domination of nature and the colonization of the globe

Introductory clip:

Eddie Izzard, "Do you have a flag?" <http://www.youtube.com/watch?v=hYeFcSq7Mxg>

John Green, "Imperialism: Crash Course World History #35,"

<https://www.youtube.com/watch?v=alJaltUmrGo>

Core readings:

Eduardo H. Galeano, *Memory of Fire: Genesis* trans. C. Belfrage (New York: Pantheon, 1985), pp.45-48, 51, 54-55, 57.

Andrew Jackson, "Humanity has often wept," from Derek Wall, *Green History: a reader in environmental literature, philosophy and politics* (London: Routledge, 1994), p.137.

Clive Ponting, *A New Green History of the World* (London: Penguin, 2007), "The rape of the world," pp.137-145; and "The foundations of inequality," pp.171-181.

Vandana Shiva, "Two myths that keep the world poor," *Ode* 28 (2005).

Vandana Shiva, excerpt from *Staying Alive: women, ecology and development* in Lori Gruen and Dale Jamieson, eds., *Reflecting on Nature: readings in environmental philosophy* (New York: Oxford, 1994), pp.35-36.

Thomas R. Dunlap, "Creation and destruction in landscapes of empire (excerpt)," in Jeffrey M Diefendorf and Kurk Dorsey, eds., *City, Country, Empire: Landscapes in Environmental History* (Pittsburgh: University of Pittsburgh Press, 2005), pp.207-212.

Stephanie Lahar, "Roots: rejoining natural and social history (excerpt)," from Kent Peacock, ed., *Living with the Earth: an introduction to environmental philosophy* (Toronto: Harcourt Brace, 1996), pp. 316-322.

William A. Dobuk, "Killing the Canadian Buffalo 1821-1881," in David F. Duke, ed., *Canadian Environmental History: Essential Readings* (Toronto: Canadian Scholars Press, 2006), pp.240-257.

Laurel Sefton MacDowell, "Encountering a new land" (excerpt), in *An Environmental History of Canada* (Vancouver, UBC Press, 2012), pp.25-29 [of longer piece on the course website].

William Cronon, "Kennecott Journey: the paths out of town," in William Cronon, George Miles and Jay Gitlin, *Under an Open Sky: rethinking America's western past* (New York: Norton, 1992), pp. 28-51.

http://www.williamcronon.net/writing/Cronon_Kennecott_Journey.pdf.

Tutorial questions:

The significance of the modern worldview lies in the practical effects of its application and we would expect these effects to be most obvious in two of the defining aspects of the modern era – industrialization and global conquest. We will see next week how the domestic effects of industrialization inspired critiques of the modern agenda and assumptions, long before the rise of the present environmental movement. The readings

for this week reveal much about how the application of modern scientific and economic ideas has, through various programs of conquest, affected the world.

However, conquest is not an exclusively modern phenomenon. Nor are slavery, patriarchy and misogyny, racism, national bigotry and their equivalents – all of which are ancient and also accompanied and influenced the application of modern ideas during the European conquest of most of the rest of the world. It is worth considering to what extent the nastier effects of industrialism and conquest are the effects of applying the modern worldview and to what extent they arise from different factors. While some of these evils may reflect excesses and deficiencies of modernism, others may have occurred because the modern ideas were not applied energetically enough and pre-modern approaches persisted.

The following questions may help to guide your reading and thinking:

- Did the European nations' efforts to conquer and control the rest of the world (its lands, people and resources) reflect the same motivations and assumptions as the western scientific and economic agenda?
- Were the destructive and cruel aspects of colonization due to the application of modern ideas, or pre-modern ones, or both in some combination?
- What would a purely modern scientific and economic program of conquest involve? What qualities would be desirable? What negative aspects and risks would you anticipate?
- In the colonial agenda, how did the perception and treatment of people and nature/resources in colonized territories compare with the perception and treatment of poor and working people and nature/resources at home during the rise of industrialism?
- Are there parallels between the European colonization of the globe and the domination of women?
- To what extent are programs of conquest today (economic and technological as well as military) tied to the ideas that underlay colonization?

And these two may provide an initial agenda for the tutorial discussions:

- What are the main lessons to be drawn from experience with conquest in modern times?
- What are the main alternatives to conquest as means of organizing relations among people and with the natural environment?

Session 8 October 31 Early critics: conservative, feminist, socialist and romantic responses to industrial society

Core readings:

E.J. Hobsbawm, "The human results of the industrial revolution," from *Industry and Empire* (Harmondsworth: Penguin, 1969), pp. 79-95.

Mary Wollstonecraft, *A Vindication of the Rights of Woman* (1792), excerpts from chapters 1, 2 and 8; from <http://www.bartleby.com/144/>.

Thomas Carlyle, "Signs of the times (1829)," in Derek Wall, *Green History: a reader in environmental literature, philosophy and politics* (London: Routledge, 1994), p. 143.

- Karl Marx, "Estranged labour (excerpt)," from *Economic and Philosophic Manuscripts of 1844*, <http://www.marxists.org/archive/marx/works/1844/manuscripts/labour.htm>.
- Louis Menand, "Karl Marx, yesterday and today: the nineteenth-century philosopher's ideas may help us to understand the economic and political inequality of our time," *The New Yorker*, 10 October 2016 (abridged), 9pp.
- Richard Holmes, "Dr. Frankenstein and the soul (excerpt)," in Richard Holmes, *The Age of Wonder: how the Romantic generation discovered the beauty and terror of science* (London: Harper, 2008), pp.330-335.
- Theodore Roszak, "Romantic perversity," from *Where the Wasteland Ends* (Garden City, NY: Doubleday, 1973), pp. 255-271.
- William Blake, "The Tyger," in *Songs of Experience* (London: 1794).
- William Blake, "The garden of love," in *Songs of Experience* (London: 1794); also put to music by Rodney Money, <http://www.youtube.com/watch?v=h6avqJDRiYY>.
- William Blake, "Jerusalem," from the preface to a longer poem *Milton: a poem* (1810); also as put to music in the hymn/anthem by Hubert Parry, <https://www.youtube.com/watch?v=qKDBGHmH7Hw>
- Samuel Taylor Coleridge, "The Rime of the Ancient Mariner," (1798), Project Gutenberg eBook [or Richard Burton *et al.* version: <https://www.youtube.com/watch?v=RGH4p4z4s5A> (and 2 following uploads)].
- Edmund Burke, *Reflections on the Revolution in France 1791* (excerpts); <http://www.fordham.edu/halsall/mod/1791burke.asp>.

Tutorial questions:

Industrialization is the archetypal expression of the modern approach to the world. It sits at the conjunction of applied modern economics and applied science and technology, treating people (labour) as well as nature as resources in the service of material progress. But early industrial nations also reflected pre-modern influences, including the effects of old class divisions and patriarchal attitudes. We can therefore ask:

- Were the negative effects of industrialization, especially in Britain where industrialization began, due to the application of modern ideas, or pre-modern ones, or both in some combination?
- Were these negative effects avoidable within the context of the prevailing economic and scientific ideas?

Or, beginning from the premise that industrialization also brought significant material benefits upon which we can now rely, we could approach the same matter from a slightly different perspective:

- Is it possible to conceive of an industrial society that is based on modern scientific and economic assumptions and enjoys its benefits, but avoids the negative effects of historical industrialization?
- Alternatively, could the positive effects of industrialization have been achieved on a different foundation of basic ideas? Can the benefits of industrialization be maintained now without the basic foundations in the modern economic and scientific ideas?

One approach to answering these questions would rely on views expressed by the critics represented in the required readings. They cover a range of quite different positions. And not surprisingly, the perspectives of these early critics of industrialism,

like the characteristics of the dominant social, economic and political arrangements in industrializing societies, combined both modern and pre-modern, or at least non-modern, ideas. So it's all more than a little confusing.

Nonetheless, you should be able to come up with answers to the following questions:

- What did the socialist, conservative, feminist and romantic critics consider to be fundamentally wrong with modern industrial society at least in Britain?
- What did they propose as alternative positions on nature of human beings, proper relations among people, the role of the natural environment, and the foundations for human wellbeing? And how did their ideas deal with the challenge of complexity?

And your answers to the two questions above can inform your answer to the following question for the tutorial:

- Given all of these options – the ideas underlying the dominant modern industrial approach and the views of the critics – what positions or combinations of positions do you find most likely to serve well to guide moves towards more sustainable institutions and practices today?

Session 9. November 7 Progress and its discontents: reason, technology and doubts over the past century

Core readings:

William Butler Yeats, "The second coming (1919),"

<http://www.poetryfoundation.org/poem/172062>

Walter Benjamin, "Theses on the philosophy of history (thesis IX: re Klee painting, Angelus Novus,)," <http://www.sfu.ca/~andrewf/CONCEPT2.html>.

Ronald Wright, *A Short History of Progress* (Toronto: Anansi, 2004), pp.109-115 [also recommended: pp.3-7; chap. 3, esp. 65-79 (see readings for week 3); all of chap. 4].

Brian Fawcett, "Universal Chicken," in *Cambodia: A book for people who find television too slow* (Vancouver: Talonbooks, 1986), pp. 57-68.

Zygmunt Bauman, "The practice of the gardening state," *Modernity and ambivalence* (Cambridge: Polity, 1991), pp.26-30.

Joanne Kates, "A fairy-tale ending to the food crisis," *Toronto Globe and Mail* (October 7, 1987).

Reinhold Niebuhr, "Progress denied (excerpt)," from W. Warren Wagar, ed., *The Idea of Progress Since the Renaissance* (New York: Wiley, 1969), pp. 130-136.

Loren Eiseley, *The Invisible Pyramid: a naturalist analyses the rocket century* (New York: Scribners, 1970), pp. 149-156.

Franz Kafka, "An imperial message," an excerpt from the short story "The Great Wall of China" (1917), <http://records.viu.ca/~johnstoi/kafka/imperialmessage.htm>.

Vandana Shiva, *Monocultures of the Mind* (London: Zed, 1993), pp.12-15, 19-21 [included in readings for week 2].

Graeme Maxton, "The end of progress and the start of the age of endarkenment," an excerpt from *The End of Progress, how modern economics has failed us* (Wiley, 2011), <http://www.clubofrome.org/cms/wp-content/uploads/2013/02/ValuesQuest-Graeme-Maxton-The-Age-of-Endarkenment.pdf>

Background

Edward Dolnick, “The end of the world,” in *The Clockwork Universe* (New York: HarperCollins, 2011), pp.13-19 [included in readings for week 4].

Tutorial questions:

The last hundred years have been remarkable for extraordinary highs and lows. There has been unprecedented advance in many areas, most obviously in technology and wealth generation, but also in other social and political fields. Over the same period, however, there have been unspeakable cruelties and appalling destruction. In addition to environmental damage, the evils of the twentieth century included brutal totalitarian regimes, creation and application of highly destructive technologies and expansion of inequities alongside increased wealth and economic capacity. So far in the twenty-first century the record has been equally mixed.

Certainly, there is good reason to think carefully about the causes of, and the possible links between, the gains and the losses. As a start, we might ask,

- Were the evils of the twentieth century the products of the modern worldview or do they reveal the residual influence of pre-modern, or at least non-modern ideas? In other words, have we had too much modernization or not enough?

The main elements of applied modernism – the economic market and the specialized and competitive world of science and technology – have in some ways demonstrated admirable diversity and adaptability. They are also among the products of the Enlightenment, which gradually opened the way to much greater tolerance for new and competing ideas and options than was evident in most previous eras. Nonetheless, many critics have expressed fears that the combination of global free market economics and technological advance is leading to a new kind of totalitarianism that is dehumanizing and ecologically destructive. Late twentieth and early twenty-first century sustainability concerns have also led many observers to conclude that the dream of infinitely continuing material progress, and the assumption that economic growth would automatically eliminate both poverty and pollution, are both over.

And so, the big question is

- How do we retain the highly desirable aspects of modern “progress” while also making necessary changes to recognize material limits, address deep inequities, be more respectful of complex interactions that we do not understand well, and maybe adopt a broader concept of human wellbeing?

That involves considering,

- What are the main limitations and errors in the core ideas that underlie the modern project (especially ideas about the nature of human fulfillment and wellbeing, how to get along with others and the natural environment, and how to deal with the complexities of the world), and what better ideas could correct or replace them?

And for a start in the tutorial discussion,

- If you suddenly had enormous influence over the world’s major decision makers, what would be your first priority for initiating long term positive change towards a more sustainable approach to living on Earth? What core ideas lie behind this change? How do they differ from the now dominant modern package of ideas?

Session 10. November 14 Greens: the rise and evolution of environmental critique and response

Core readings:

- John Bellamy Foster, "Expansion and conservation," in *The Vulnerable Planet: a short economic history of the environment* (New York: Monthly Review Press, 1994), pp.69-84.
- Aldo Leopold, "The land ethic," in *A Sand County Almanac* [originally published in 1949], <http://home.btconnect.com/tipiglen/landethic.html>, esp. "The Outlook," pp.12-14.
- Laurel Sefton MacDowell, "Early cities and urban reform" (excerpt on public health and urban greening), in *An Environmental History of Canada* (Vancouver, UBC Press, 2012), pp.86-93.
- Jane Jacobs, *The Death and Life of Great American Cities* (New York: Vintage, 1961), pp.443-448.
- Global Greens, "Principles," in *Global Green Charter* (2001, updated 2012), pp. 4-7 <http://www.globalgreens.org/globalcharter-english>.
- David W. Orr, "Love," in *Earth in Mind: on education, environment and the human prospect* (Washington: Island, 1994), pp.43-47.
- Ramachandra Guha, "Going green," in *Environmentalism: a global history* (New York: Longman, 2000), pp.1-9.
- Paul Kingsnorth, "Confessions of a recovering environmentalist: a personal account of a journey through environmental politics," *Dark Mountain* 1 (May 2010); <http://paulkingsnorth.net/journalism/confessions-of-a-recovering-environmentalist/>.
- Robert B. Gibson, "Diversity over solidarity: what we have learned and where we have come in 30 years of ecoactivism," *Alternatives Journal* 26.4 (Fall 2000), pp.10-12.

Bonus background on the Canadian environmental movement:

- Laurel Sefton MacDowell, "The environmental movement and public policy," in *An Environmental History of Canada* (Vancouver, UBC Press, 2012), pp.243-267.

Survey:

- Peter Dauvergne, "Introduction," in Peter Dauvergne, *Historical Dictionary of Environmentalism* (Scarecrow Press, 2009): xli-lviii

Tutorial questions:

While there is evidence of environmental abuses and environmental critics stretching back to the beginnings of human history, the origins of environmentalist criticism of various kinds are usually traced to the nineteenth century – initially with health concerns related to urban and industrial pollution (e.g. in Britain) and later with concerns about resource depletion and the disappearance of wilderness (esp. in North America), plus advocacy of humane treatment of animals, of spiritual and aesthetic links to nature as a garden, and even the beginnings of a more systemic (or what we would now call ecological) perspective.

Throughout the twentieth century these themes were restated and elaborated in various forms, gradually to cover a broad set of concerns at the global as well as local and regional scale. Like all the other ideas we have discussed, these arose in an historical context. They responded in various ways to the prevailing modernist thinking and practices and they reflected the contributions of other critics, including the eighteenth and nineteenth century thinkers, the critics of colonialism and the representatives of other twentieth and twenty-first century worries discussed over the last three weeks.

All of these matters are worthy of consideration:

- Did the environmental concerns that emerged in the late nineteenth century and continued in the twentieth pose any fundamental challenges to the dominant character of industrial society and the ideas underlying it?
- Were the basic concerns of the early environmentalist critics essentially the same as those that had been raised by the other critics of industrial ideology and practice, or did the environmentalists introduce something new?
- What were the new understandings of possible and desirable human behaviour – in relations with other people as well as relations with the natural environment?

For the tutorial discussion, the opening question is,

- What were the most promising (and perhaps subversive) new ideas and associated possibilities introduced by the greens?

Session 11. November 21 Sustainability: the integration of environment and development under conditions of complexity

Core readings [just scan the longer ones]:

- Robert B. Gibson, “Sustainability: the essentials of the concept,” chapter 3 of *Sustainability Assessment* (London: Earthscan, 2005).
- Stockholm Resilience Centre, “The nine planetary boundaries,” [accessed 2019 not on the course website] <https://www.stockholmresilience.org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html> and/or
- Thomas Sterner et al., “Policy design for the Anthropocene,” *Nature Sustainability* 2 (January 2019), pp.14-21.
- Kate Raworth, “Want to get into the doughnut? Tackle inequality,” Exploring doughnut economics (2014), <http://www.kateraworth.com/2014/10/16/doughnut-inequality/> and/or
- Kate Raworth, “Why it’s time for Doughnut Economics,” *Progressive Review* 24:3 (Winter 2017), pp.217-222.
- United Nations Sustainable Development Knowledge Platform, *Sustainable Development Goals*, on-line, multi-layer site, <https://sustainabledevelopment.un.org/?menu=1300>,* and the background materials available at United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development* (New York: UN, 11 August 2015), esp. paragraphs 14-15 (pp.4-5) and paragraphs 18-38 (pp.5-8) <https://sustainabledevelopment.un.org/post2015/transformingourworld> [also in readings for week 1].

Jianguo Liu, et al. [Liu, J., T. Dietz, S. R. Carpenter, M. Alberti, C. Folke, E. Moran, A. N. Pell, P. Deadman, T. Kratz, J. Lubchenco, E. Ostrom, Z. Ouyang, W. Provencher, C. L. Redman, S. H. Schneider, and W. W. Taylor], "Complexity of Coupled Human and Natural Systems," *Science* 317 (14 September 2007), pp.1513-1516.

Tim Jackson, "The transition to a sustainable economy," in *Prosperity without Growth* (2009), pp.171-185.

World Business Council for Sustainable Development, *Changing Pace: Public Policy Options to Scale and Accelerate Business Action Towards Vision 2050* (2012), esp. pp.1-6, <https://www.greengrowthknowledge.org/resource/changing-pace-public-policy-options-scale-and-accelerate-business-action-towards-vision>, or World Business Council for Sustainable Development, *Vision 2050: a new agenda for business* (Geneva: WBCSD, 2010), esp. pp.2-4 and 6-7, full report available at <https://www.wbcSD.org/Overview/About-us/Vision2050/Resources/Vision-2050-The-new-agenda-for-business>

Smart Prosperity, *New Thinking: Canada's Roadmap to Smart Prosperity Roadmap* (February 2016), esp. pp.1-8, <https://www.smartprosperity.ca/thinking/newthinking>

WWF et al., *Living Planet Report 2018: Aiming Higher*, esp. pp.22-25, https://wwf.panda.org/knowledge_hub/all_publications/living_planet_report_2018/

Dale Lewis, "Getting poachers to give up their guns in Zambia," *Solutions: for a sustainable and desirable future* 2:4 (1 August 2011), <http://www.thesolutionsjournal.com/node/960>.

Geeta Vaidyanathan, "In Gandhi's Footsteps: two unusual development organizations foster sustainable livelihoods in the villages of India," *Alternatives Journal* 28:2 (spring 2002), pp.32-37 [also in readings for week 1].

Basic background:

World Commission on Environment and Development, Gro Harlem Brundtland, chair, "From one earth to one world: an overview," from *Our Common Future* (Oxford/New York: Oxford University Press, 1987), pp. 1-23; online at <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>

The United Nations Conference on Environment and Development, "The Rio declaration on environment and development," June 1992 [downloadable from <http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=78&ArticleID=1163>]

Tutorial questions:

The term "sustainable development" was introduced to popular use by the World Commission on Environment and Development (aka the Brundtland Commission) in 1987. The WCED and sustainable development represented a coming together of two of the main agenda items of the UN family of global governance bodies – development as a means of overcoming poverty and enhancing economic wellbeing, which had been a major focus of international policy and activity since the late 1940s, and environmental protection at a world scale, which had arisen as a recognized concern in the early 1970s.

The idea of linking environment and development was counter-intuitive for many people, including some committed environmentalists, and to some extent it remains so today. Throughout the early years of the recent environmental movement, growth – of

human numbers, resource extraction activities, consumption and waste – was considered the key problem. And development was frequently used as just another word for more growth. At the same time, however, most environmentalists saw that any useful long-term strategy would have to deal with the links between socio-economic conditions and environmental behaviour, and include plausible means of addressing social and economic as well as more narrowly environmental concerns.

In this way, the old ecological principle that everything is connected to everything else has come to be applied in socio-ecological thought. Campaigns for environmental responsibility have been more often linked to efforts to improve social justice, prevent armed conflict, reduce gender inequity, improve child health, and so on. This does not make things easier, especially when combined with appreciation of scientific uncertainty and cultural diversity. However, it seems that more narrow and partial approaches are unrealistic. It has proved impossible, for example, to protect endangered species without protecting their habitat, and impossible to protect wildlife habitat without involving the local communities and finding complementary ways of enhancing their wellbeing.

The challenge now comes in two parts – the first is to be reasonably clear about the problems to be addressed, and the second is to identify the basics of the needed solutions.

You will notice that most of the readings for this week (and most of the huge heap of writings on sustainability available today) focus on proposed solutions. They offer differing answers, which is fine (probably a diversity of answers and approaches to sustainability is desirable). But it may not be immediately obvious whether there are any fundamental differences among the ideas and assumptions upon which the various proposed solutions rest. So we should look deeper.

For the tutorial discussions, we can begin by identifying the basic ideas and assumptions underlying the various readings. The most important basic ideas and assumptions are those about the nature of wellbeing, how to organize societies and economies to deliver lasting wellbeing, and how to deal with all the big complexities while doing so. The following three questions expand on these points a little:

- What do people want and need for a good life; what does nature need, at least if it is to continue providing the key ecological services upon which human life depends; and what are the connections between these two considerations?
- What ways of living and seeking fulfilling lives can provide the foundations for lasting wellbeing (respect the capacities of the biosphere, match human capacities and aspirations, and respect how little we know about the enormous complexities of life on Earth)?
- How can we best push the changes needed to move towards more sustainable ways of living?

You can apply your thinking about these three points in answering the following two tutorial discussion questions:

- What (if anything) do the authors of the reading think is basically wrong with the current ideas, structures and behaviours that contribute to (or fail to correct) continued mistreatment of the biophysical environment, persistent economic inequities, social injustice and other adverse influences on the quality of life?

but the answer to that question must be accompanied by attention to the flip side:

- What do they say, or assume, about the key positive characteristics and valued contributions of current ideas, structures and behaviour and how we might preserve them?

Session 12. November 28 Lessons: implications of an inquiry into the historical and cultural roots of our current environmental situation and our possibilities for change

Core readings:

Donald Worster, *The Wealth of Nature: environmental history and the ecological imagination* (Oxford: Oxford University Press, 1993), pp. 206-219, 242-243.

Ursula Franklin, "Beautiful, functional and frugal," *Alternatives* 33:2 (2007), p.56.

Albert Camus, *The Rebel* (New York: Vintage, 1956), pp.288-289.

Ian G. Simmons, "Context for environmental history," *Encyclopedia of Earth* (2008).

Tutorial questions:

After this quick tour through the history of ideas and their effects, we can return to our first tutorial questions about what changes are most needed now.

In preparing your answer this time, please consider our exploration of the nature of pre-modern and modern ideas, recognizing that the basic ideas – about the nature of humans wellbeing, how we can best get along with each other and the natural environment and how we can best deal with complexity – that underpin dominant human political and economic institutions today are current versions of modern that human institutions first began to adopt maybe 500 years ago.

Last week, after considering the experience of the past hundred years or so, we asked about the viability of the fundamental assumptions of modernism and the nature of possible replacements for the purposes of sustainability. Now we can look at this more closely, in light of the whole sweep of prehistory and history that we have reviewed (a bit quickly, admittedly). The following four are the main questions for a detailed analysis:

- As a representative of the interests of yourself and others in 2068, what do you find to be the key lessons we can take from the human record so far to help us to build a generally more durable, just and agreeable future in a complex world?
- In particular, what (if any) basic ideas about humans, the environment and proper relations between them should be adopted individually, locally and/or globally?
- Would this entail fundamental changes to prevailing basic assumptions and attitudes, as well as fundamental changes to how we organize our production and consumption and our institutions of learning and decision making?
- What historical (or other) grounds can you give to support your position; and how firm are these grounds – in other words how confident are you that your position is sound?
- Insofar as significant changes are needed, how might they be encouraged most effectively? What can we learn from how big changes happened in the past?

Unfortunately, we won't have enough tutorial time to go through all of these directly. We will therefore leave it to you to consider these matters in preparing your new answer to the old week one question:

- What are the two most important changes that are needed in ideas and practices in the world over the next 50 years to start moving us to a more durable, just and agreeable future? (Please restrict yourself to changes that could conceivably occur.)