

ERS 102- Sustainability and the really long view

COVID 19 ONLINE VERSION

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DRAFT: Please check latest version.

Note:

On-line delivery will pose all sorts of challenges, teething problems. This is the first time most of us have done it. Please bear with us and we will try to make the experience as useful and enjoyable as possible

WEEK	1	2	3	4	5	Reading week	6	7	8	STUDENT BREAK	9	10	11	12
Date	Jan 11 th	18 th	25 th	1 st Feb	8 th	Feb 13 th - 21 st	22 nd	1 st March	8 th	Friday 13 th - Tuesday 16 th	15 th	22 nd	29 th	5 th April

QUEST SUMMARY

Focusing on the relationship between complexity and energy in bio-physical, ecological and social contexts, we review trends in 'Big History' as it has unfolded from the Big Bang to the Internet, and everything in between. The course explores the implications of this 'deep-time' perspective for our understanding of the great challenge of sustainability.

OVERVIEW

Imagine that you could look at the Earth and the universe from a vantage point outside space and time. Imagine that you could press a re-wind button ... and go all the way back? What

would you see? What would be the most significant features of cosmic history in reverse? Great episodes such as World War I or the French Revolution would disappear into a blur. A series of more significant punctuations would come into view: modernity and the connecting up of a global human culture; agriculture and the emergence of the first cities; fire culture and language; the Cambrian explosion and multicellular organisms; the evolution of life; the creation of planets and solar systems; the birth of stars...the big bang.

That is a lot of history and seemingly an impossibly large canvas. How can such a big picture help us to navigate the social and ecological problems of the twenty-first century?

Although all species eventually become extinct, most manage to stay the course for around two million years. In the long view, sustainability is about whether humanity manages to live out this evolutionary potential. For this reason, it should not be measured in decades or even centuries, but rather millennia and aeons. Longer than recorded history, such a time-scale is difficult to conceive, let alone to operationalize at the level of politics. But this is the task facing the current generation and their great grandchildren. The problem is made more difficult by the fragmentation and increasing specialization of scientific knowledge which makes it difficult see the big picture. At the same time, without a shared, taken-for-granted religious world view it is also difficult to find meaning and significance in the world.

The 'Big History' approach allows students to join the dots and to make connections between different modules, courses and disciplines. Viewing the past on multiple time scales, the emphasis of the module is on seeking out common themes and patterns. Synthesizing the headline findings from cosmology and physics, chemistry and the life sciences, history and anthropology, *Big History* provides the ultimate 'Hitch Hiker's Guide' – identifying key episodes in the development of complexity in the universe and an underlying order which links the birth of stars with the origins of life and even the current social and ecological crises of civilization. Focusing on critical threshold moments, the module focuses on the 'Goldilocks conditions' – 'not too hot, not too cold...but just right' – which periodically allowed the emergence of entirely new forms of complexity. The fragility of these pinpricks of complexity and the Goldilocks conditions which sustain them provides a foundation for a more nuanced and long-term view of the possible futures for humanity and the biosphere.

WARNING

I will go fast and make this as entertaining as possible under the circumstances
(cameos from children and ferrets – that sort of thing)

You won't understand everything. I just want to whet your appetite and give some
basis for the discussion

The course is really about the integration of all knowledge and human experience.
That's what Big History is. So, if you didn't feel a little overwhelmed, you would not be
getting the point. But as daunting and vertiginous as is a story with such scope and

scale, it is also liberating and wildly exciting. My honest advice is to enjoy the ride and take what you can from it. There will be something for everyone – I promise!

You are all stardust.

Overview of course structure.

STRUCTURE:

(a) Online lectures by Dr QUILLEY

The course will center on a 2-hour lecture/seminar slot – which this year, will usually be recorded as a narrated Powerpoint and made available through LEARN on a weekly basis.

(b) Online videos from the Big History Project (Professor David Christian; funded by Bill Gates)

(c) GROUP WORK: Each session will usually be associated with guided individual and/or group work.

Students will be divided into WORKGROUPS. You will be collaborating and working within your groups all semester. It is up to you how you do this. Most often, the GROUP WORK will take the form of a free form discussion among your group. You are welcome to talk in real time using social media of whatever kind, but you must also participate in the relevant weekly GROUP-specific discussion on the forum for each week on LEARN (so that we have some record of activity). On the debate page on LEARN you can have an iterative debate, responding to each other's comments and threads; and/or you can upload summaries of debates you have had in real time – preferably a bit of both.

Teaching Assistants will mark:

- (i) INDIVIDUAL PARTICIPATION [10%] the enthusiasm, effort and intellectual content of the participation on an individual basis – giving an overall mark at the end of the semester. TAs can share informal marks with you for some weeks – just to see how you are doing. **DO NOT QUIBBLE AND CHALLENGE THIS MARKING.** It's just a guide for you.

- (ii) GROUP WORK [10%] - the quality of the 'weekly summary' that each group works on together and submits to the relevant dropbox [**MAKE SURE THE SUBMISSION IS APPROPRIATELY LABELLED WITH GROUP NUMBER AND WEEK**]

For more details on assignments and marking see below and on LEARN

READING AND RESOURCES:

At first sight, there is a lot of reading here. Please bear in mind that a key skill you should be trying to learn relates to efficiency: skimming, using the index and processing material quickly and strategically. You are not expected to read every book cover to cover. You ARE expected to use the Internet alongside the texts and find review articles and other resources to supplement your reading.

PLEASE NOTE: You will have to buy a few books on Amazon. Having said that you can nearly always find either the exact book you need online, often for free – but failing that you can also make use of book reviews, articles by the same author, review essays about that author. There is always a ton of material that you can make use of. I am very much looking for students to show initiative and to ferret out the information that they need. This is always a skill worth acquiring. This year, whether we like it or not, we have no choice.

If you are assiduous and do the work, you will get a great deal out of the course and the material will complement and provide a counterpoint to material and perspectives covered on other courses.

VIDEOS: Video links in the readings below will be made available through LEARN

WORK GROUPS: Please familiarize yourself with your work groups. Exchange emails/phone numbers/zoom accounts – whatever you need to work effectively together. Generally, after listening to each week's lecture, groups will work together, doing the readings, and discussing their topic and related questions on the relevant Forum. **You get to this by going to LEARN, 'CONNECT' and then 'DISCUSSIONS'.**

- Each weekly session will have an associated Forum (e.g. LECTURE 1) and within each Forum, there will be a topic area for each group. All debates are visible to all members of the class. Students can't 'see' what has been posted until they make their first post.
- Following this group-discussion, each group should provide a one-page summary or digest of what they have learned, the key take-outs, remaining questions and any areas of illuminating disagreement amongst themselves. This should be posted to the

discussion AND submitted to the appropriate Dropbox. **MAKE SURE IT IS LABELLED WITH GROUP NAME AND WEEK NUMBER (.e.g Grp6-week4-GROUP SUMMARY)**

- You should use google docs or some other app so that you can all work on this final document together. One person can take responsibility for submitting to the drop box.
- It doesn't have to be long or complex. It can take ANY FORM : simple text, a powerpoint diagram, a picture, a systems diagram, a Socratic dialogue. The idea is simply to sum up your discussion and the most interesting /contentious ideas that arose. Areas of disagreement are particularly interesting. Savour them like olives or anchovies on a pizza. *If you don't like olives or anchovies, visit Italy train your taste buds.* Contend but don't fight.
- **IMPORTANT:** As well as in the Dropbox, this should be posted in the group's Topic area where it will be visible and a useful aid for students from other groups. On the thread this final post should be labelled in the same way as the Dropbox (e.g. **(.e.g Grp6-week4-GROUP SUMMARY)**)– and hence easily identified by the TA. You can decide among yourselves how the work should be divvied out.
- To work effectively, you will need to agree to do the video watching by a certain day of the week, with enough time to have a proper ping pong debate and work on that shared document.

TEXTBOOKS AND REQUIRED READINGS:

1. Required textbook:
 - a. BOOK: Christian, David. *Maps of Time: An Introduction to Big History* (Berkeley, 2004 or later edition)

AND ALSO

- b. VIDEOS: Selected videos from The Big History Project (<https://www.bighistoryproject.com>)
2. Electronic readings posted on Waterloo LEARN
 3. Additional resource posted on Waterloo LEARN
 4. OTHER Important and valuable resources
 - a. The Big History Project (<https://www.bighistoryproject.com>)
 - b. Jared Diamond's *Guns Germs and Steel*
 - c. McNeill and McNeill's *The Human Web*

Every student should buy a copy of either Harari's *Sapiens* and Christian's *Maps of Time*...and just behind these titles, McNeill and McNeill's *The Human Web* and Jared Diamond's *Guns Germs and Steel* – are recommended reading. I strongly advise you to cooperate and share

books between you. These titles will be available at the campus bookshop, but you can often pick up cheap secondhand editions at Abebooks.ca. Bill Bryson's popular science title is also useful and very readable!

Christian, D., (2011). *Maps of time: An introduction to big history* (California world history library; 2). Berkeley: University of California Press.

Yuval Noah Harari (2014) *Sapiens. A Brief History of Human Kind* (Signal)

Bryson, B. (2008). *A really short history of nearly everything* (Abridged and illustrated ed.). Toronto]: Doubleday Canada.

Diamond, J. (2005). *Guns, germs, and steel: The fates of human societies*. New York: Norton.

McNeill, J., & McNeill, William Hardy. (2003). *The human web: A bird's-eye view of world history* (1st ed.). New York; London: W.W. Norton & Company.

THE BIG HISTORY PROJECT

Big History as a field has been pioneered by many eminent scholars including notably Fred Spier, Norbert Elias (although he never used the term) and his student (now a leading figure in his own right) Joop Goudsblom. But the most influential framing contribution has come from David Christian. I would like to acknowledge the long-time support of Joop Goudsblom and David Christian, and in particular David Christian's generosity in allowing me to pillage a variety of audiovisual materials and graphics. Christian has been successful in getting the support from the Bill Gates Foundation and establishing the Big History project as an increasingly important perspective on the human condition and the grand challenges (e.g. climate change) facing our species as we move into the new millennium. The course will draw upon many of these resources and students will benefit from many very well produced video documentaries produced by Christian with Gates' support and funding.

For more details see <https://www.bighistoryproject.com/home>

PLEASE NOTE:

STUDENTS SHOULD SIGN UP FOR FREE MEMBERSHIP OF THE BIG HISTORY PROJECT IMMEDIATELY. YOU WILL NEED THIS TO ACCESS KEY RESOURCES FOR CERTAIN SESSIONS

<https://www.bighistoryproject.com/home>

There will be a link on LEARN

LECTURES

PLEASE NOTE: ** denotes minimal compulsory reading/viewing; * denotes highly recommended reading; other texts are necessary for a fuller exploration of the topic.

ALSO: This is the first year I have taught this course. Because I haven't road-tested the length and sequencing of the various topics, the timing and weekly schedule may not quite match this outline exactly. The sequence will not alter.

Pre-course Preparation

David Christian TED Talk: The History of Our World in 18 Minutes:

http://www.ted.com/talks/david_christian_big_history

PART I: Big History: An Introduction

1. Introduction and Overview

Overview: In this introductory session, we will introduce the idea of 'Big History' and the value of multiple, long and overlapping timescales.

Main Reading:

**ONLINE RESOURCE: BIG HISTORY PROJECT, CHAPTER 1 (6 short videos)

**David Christian, Maps of Time, Introduction [TEXTBOOK]

Additional /optional reading

*Fred Spier (2011) Chapter 1 [on LEARN]

*Harari, ch 14-15 [TEXTBOOK]

PART II: The Physical Universe: Complexity and the cosmos

2. Cosmogenesis: The origins of the universe, the formation of planets, stars and the earth

This session will cover:

- (1) the theory of the Big Bang and survey what scientists now understand about the broad process of 'cosmogenesis' (i.e. the unfolding development of the cosmos). We will

explore the idea that this process can be understood in terms of the emergence of steep matter and energy gradients, making possible an increase in matter and energy flows and thus facilitating increasing complexity and differentiation (not least, the formation of countless billions of stars and planets). This material is in the Big History Website videos listed below

Main Reading

**ONLINE RESOURCE: BIG HISTORY PROJECT, CHAPTER 2 (several short videos)
**Christian, ch1-3 [TEXTBOOK]

Optional /Additional Reading

*Spier ch3 [LEARN]

- (2) *A theory of knowledge*: We will also introduce a basic epistemological framework – i.e. a sociological theory of knowledge ('How do we know things?'). Physical, biological and social phenomena will be introduced and compared as successive and hierarchical 'levels of integration'.

AND

How knowledge progresses: Drawing upon Norbert Elias's contrast between the modalities of 'involvement' and 'detachment', the lecture will explore how language allows humans to construct and share progressively more realistic models of the world in which they live.

*Stephen Mennell, chapter on Involvement and Detachment [on LEARN]

*Quilley and Loyal (2005) 'Eliasian Sociology as a 'Central Theory' for the Human Sciences' [LEARN]

Norbert Elias (2007 [1987]) *Involvement and Detachment* (Dublin: UCD Press) IN LIBRARY IN COLLECTED WORKS. **The original 1950s article (below) is much shorter, but the book is much better edited and more clearly laid out.**

*Elias, N. (1956). Problems of involvement and detachment. *British Journal of Sociology*, 7(3), 226-252. [AVAILABLE ON LINE]

3. Life: The emergence of the biosphere and the theory of evolution

This session covers the origins of life, the increasing complexity of both organisms and ecosystems and the theory of evolution.

Main Reading

**ONLINE RESOURCE: BIG HISTORY PROJECT, CHAPTER 3 (6 short videos)

**Christian, ch4-5 [TEXT BOOK]

Optional /Additional Reading

Spier, Ch5 [LIBRARY]

4. Energy and complexity: galaxies, ecosystems, civilization

Building on this broad account of cosmogenesis and biological evolution, session four further explores the relationship between energy flows and complexity in relation to very different entities, timescales and spatial scales; relating to galaxies, ecosystems and cultural-economic systems (civilization). We look at the idea of 'goldilocks conditions' for a series of 'thresholds' in the emergence of (i.) life, (ii.) social life and culture, and (iii.) complex civilizations – and the significance of the idea that with complexity comes fragility. I review one very influential analysis, by Joseph Tainter, of the relationship between problem-solving, complexity and societal collapse. Finally, we explore how these ideas relate to contemporary problems of sustainability and limits to growth.

Main Reading

BIG HISTORY INTRO on 'Thresholds': <https://www.bighistoryproject.com/thresholds/intro>

**Christian, Intro [TEXTBOOK]

Optional /Additional Reading

* Quilley, S. (2011). Entropy, the anthroposphere and the ecology of civilization: An essay on the problem of 'liberalism in one village' in the long view. *Sociological Review*, 59(Supp.1), 65-90.

[LEARN]

Rachel Nuwer 'How western civilization could collapse' <https://homerdixon.com/how-western-civilization-could-collapse/>

Tainter, J. (2011). Energy, complexity, and sustainability: A historical perspective. *Environmental Innovation and Societal Transitions*, 1(1), 89-95. [LEARN]

PART IV: The cognitive revolution and the Anthroposphere

5. The triad of basic controls: fire and civilization

In this session, we will look at Norbert Elias's elegant proposition that ecological, social and psychological controls develop in tandem – the 'triad of basic controls'. The implication of this idea is profound: namely that with different material/energy regimes (different 'modes of production' as Marx would have put it; or different 'ways of making a living' in ordinary language) – human beings engage in very different relationships with the natural world and at the same time experience very different patterns of socialization and acculturation which engender equally distinctive average psychological profiles or average personality types i.e. that all people are individually distinctive, but at the same time different societies differ from each other systematically in terms of their sociological and ecological profiles. One consequence of this is that it is that you can't transpose one set of psychological traits, ideas or modes of behaviour easily from one society to another, not without changing the concomitant social and ecological profiles.

Main Reading

**ONLINE RESOURCE: BIG HISTORY PROJECT, CHAPTER 4 (6 short videos)

**Goudsblom's Lund Essay [LEARN]

Optional /Additional Reading

*Quilley and Loyal – Eliasian sociology and a central theory [LEARN]

*Mennell - Chapter from his 1992 book Norbert Elias: An Introduction [LEARN]

*Elias – very short section from *What is Sociology?* 1978 [LEARN]

Goudsblom 1992 *Fire and Civilization*

*Goudsblom & De Vries 2000 *Mappae Mundi* 'Introduction: The expanding anthroposphere' [LEARN]

6. Agrarianization and domestication

In this session, we will look at what was once called the 'Neolithic revolution' i.e. the transition to agriculture. In the early 20th century, archaeologists such as the Australian Gordon Childe, showed that in just a few millennia, humanity embarked on what seemed like a wholesale shift away from a hunting and gathering lifestyle that had endured for two million years on five continents and through all manner of climatic shifts. Instead people began to farm. And once just a few populations were engaged in farming, there seems to have been an inexorable pressure for others to follow suite, such that the last hunter-gathers may become extinct within a century. We will start by asking how and why this transition took place and what it meant for the future of humanity. Specifically we will look at: (i) the relation between fire culture and agrarianization; (ii) agriculture and domestication of animals and plants as a largely unintended evolutionary process; (iii) the significance of 'neoteny' (the evolutionary retention of juvenile characteristics) in domesticated species including human beings; (iv) the difference between 'delayed' and 'immediate' return economies; and (v) and the relationship between agrarianization and the emergence of hierarchy, inequality and violence.

Main Reading

**ONLINE RESOURCE: BIG HISTORY PROJECT, CHAPTER 4 (6 short videos)

**Harari's *Sapiens*, CH5-8 [TEXTBOOK]

Optional/additional reading

Berman (2000) Ch2 [and Introduction] [LEARN]

McNeill and McNeill Ch. II [LEARN]

Budiansky – *Covenant of the Wild* [LIBRARY]

Budiansky – *The Truth about Dogs* [Amazon –for dog lovers]

Eisenberg chapters [On LEARN]

7. **Mind, Language, Culture I: Different societies produce different personalities/psychologies**

Lecture 7 draws on the work of Ernest Gellner, Norbert Elias, Anthony Giddens and Karl Polanyi

The modern condition has often been characterized in terms of a trade-off between the scientific worldview, which allows us to intervene in the world much more effectively and do more things, on the one hand; and a process of what Max Weber called 'disenchantment' on the other – the loss of a sense of being 'at one' with the cosmos, a feeling of alienation and

perhaps loneliness, and above all the sense that the universe is dead and ultimately meaningless. In lectures 7 and 8, we will explore this idea of modernity as a process of disenchantment (from the sociologist Max Weber). Building on Elias's idea of the involvement/detachment balance we will look at:

- (i) the relationship between language and the human capacity to manipulate symbols on the one hand, and self-consciousness and awareness on the other;
- (ii) the psychological and social consequences of being self-aware, and particularly awareness of mortality;
- (iii) the cognitive transformation (i.e. changes in the growth and development of the brain and the capacity for abstract thought, organization and coordination of activities) that accompany the shift from the primacy of oral culture to mass literacy.
- (iv) The sociology of 'disenchantment' as a feature of modern societies

In Part 1, we will start to explore the impact of language on human cognition and culture. Recapping Elias' 'triad of controls' we start from the idea that controls over self (psychology), others (social controls) and nature (social-ecological regimes) progress in tandem. I mean 'progress' in the non-normative sense of directional change ('progression') – not movement to a higher/better state. Drawing on historical sociology we look at the implications of this idea – that different societies produce different average personalities and psychologies. And in particular, we focus on the extent to which modernity and modernization engender the most unique form of society in history – a society of disembedded and highly mobile individuals – very different to anything in history. This level of complexity is tied very directly to resource and energy flows – remember the 'triad of controls'.

In Part 2, we recap Elias's 'involvement and detachment' and explore how this 'society of individuals' is tied to cognitive and perceptual changes that were necessary for the scientific revolution; before looking at the implications of individualization and the de-linking of individuals from clans, families and place-bound communities, for political legitimation.

Part 1 and Part 2 both relate to the acceleration of what Christian calls 'collective learning'

Reading

**ONLINE RESOURCE: BIG HISTORY PROJECT, CHAPTER 4 (6 short videos)

**ONLINE RESOURCE: <https://www.bighistoryproject.com/en/thresholds/6> [the Big History riff on 'collective learning']

*Christian's Maps of Time – use the index and read the pages referenced under 'collective learning'

**Harari, Ch1-4 [TEXTBOOK]

Additional /optional reading

*McNeill and McNeill, Section I [LEARN]

*Elias, N. (1956). Problems of involvement and detachment. *British Journal of Sociology*, 7(3), 226-252. [ELECTRONIC RESOURCE] – from Week 1

Norbert Elias (1989) *The Symbol Theory* (UCD PRESS)

Ernest Gellner (1983) *Nations and Nationalism*

8. Mind Language and Culture II: Imagined community and nation-state formation

Part 1: Continuing from Lecture 7, the first part of session 8 will explore the dynamics of nation-state formation and the processes of mutual identification that allow the emergence of what Anderson calls an 'imagined community'. The discussion focuses in particular on Ernest Gellner's analysis of the role of high culture and educational monopolies extended by the nation-state (in addition to monopolies of violence and currency); and Walter Ong's examination of the cognitive impact of literacy on oral societies. The establishment of such a high culture was historically a prerequisite for liberal democratic societies based on the sacramental idea of the individual. Where democracies are imposed or established prior to these monopolies and the creation of a society of individuals, the resulting societies are often either unstable (e.g. Iraq or Somalia) or are characterized by almost insoluble tensions between modern, civic-national institutions and ethno-tribal-territorial forms of association (e.g. Canada and First Nations; India and sub-national tribal societies such as the Naga people).

The lecture will provide a model of traditional and modern market societies in relation to the roles of STATE, MARKET and LIVELIHOOD, the relative freedom of the individual and the costs of mobility. This heuristic will enable you better to conceptualize the left/right, libertarian/communitarian and green/promethean currents of modern politics.

Main Reading

**ONLINE RESOURCE: BIG HISTORY PROJECT, CHAPTER 4 (6 short videos)

Additional/Optional Reading

Walter Ong – Use Wikipedia to learn a little more about Ong and his book *Orality and Literacy*

*Morris Berman 1981 *The Re-enchantment of the World* – Chapter on LEARN [*But the whole book is fantastic*]

** ONLINE RESOURCE: Listen to Sheldon Solomon's entertaining introduction to Ernest Becker and his famous book *The Denial of Death* <https://www.youtube.com/watch?v=XpVkrldz9-Y>
[LINK WILL BE ON LEARN AS WELL]

Dickinson's paper is a short but quite dense. Have a go reading it after the Solomon video. She asks the question, why might it be, that exposing people to facts or information about environmental crisis might make them consume more! It's pretty bloody strange ☺ Welcome to the dark side of the moon.

*Janice Dickinson 2009. *The People Paradox* [LEARN, and available online <https://www.ecologyandsociety.org/vol14/iss1/art34/>]

PART V: The Juggernaut of Modernity

9. Jared Diamond's 'Guns Germs and Steel' and Norbert Elias's 'On the Process of Civilization'

The first half of this session will be devoted to Jared Diamond's argument in *Guns, Germs and Steel* with regard to the geo-political outcome of the long-term process of global integration, and in particular the role of continental geography, infectious disease and demography.

I will spend the last hour, summarizing Norbert Elias's thesis in 'On the Process of Civilization [nee 'The Civilizing Process'] – namely that the growth of complexity and the scale and scope of interdependencies between individuals and groups, in tandem with the growing power of the state, has seen a pacification of social relations through 'external controls' (i.e. police, laws, rules, regulations, surveillance) that become internalized into the psychology of citizens. Hence, counter intuitively to some, there has been a long term decline in inter-personal violence between citizens in most effectively organized and function Western-type states; but this can't be dissociated from the coercive power of the state and its capacity to regulate and surveil its citizens; from the catastrophic ecological profile of industrial societies; and from a massive increase in death rates for conflicts *between* states; and as we shall see next week, from the enormous social and cultural costs of state-building in terms of both internal pacification and external colonization.

Reading

**ONLINE RESOURCE: BIG HISTORY PROJECT, CHAPTER 5 (6 short videos)
McNeill and McNeill - VI and VII [LEARN; TEXTBOOK]

**Harari Ch9-13

Additional/Optional Reading

Berman 2000 *Wandering God* –ch2] [ON LEARN]

*Lawson's short review of Diamond [ON LEARN]

*Jared Diamond *Guns, Germs and Steel* [LIBRARY; Student purchase – if you intend to write on this topic]. **This is book is an absolute classic and very worthwhile buying. It is brilliantly written, very engaging and provides many talking points.**

**Quilley and Loyal (2005) 'Eliasiian Sociology as a 'Central Theory' for the Human Sciences' [LEARN] – FROM WEEK 1

Mennell, S. (1992). *Norbert Elias: An introduction*. Oxford, UK ; Cambridge, Mass., USA: Blackwell.

10. Modernity and the system of nation states: 'nation-state-market' and the 'individual'

In this session after finishing my summary of Norbert Elias's theory of civilizing processes, I will introduce the ideas of modernity and modernization. Drawing upon ground-breaking contributions by Max Weber, Karl Polanyi, Norbert Elias, and Ernest Gellner, I will outline the contours of modern society and the ways in which it differs from traditional agrarian societies. We will look what is involved in the process of nation-state formation focusing in particular on the monopolies of:

- violence i.e. the state's capacity to inflict violence whilst restricting the ability of individuals and groups to perform violence acts;
and
- education: i.e. its capacity to dictate the content and form of education for all citizens and gradually circumscribe and restrict the extent and scope of family and community socialization and acculturation.

The overview presented here will focus on the idea that the state depends on a relationship with individuals (unmediated by clans, families, tribes or other place-bound forms of association). Individualization makes possible a democratic-liberal conception of a politics organized around the rational decision-making of individual citizens. At the same time, individualization is a prerequisite for the kind of capitalist market economy that we take for granted. And finally, this growth-oriented, market economy is in turn a prerequisite for the existence of the state because it produces the steady flow of fiscal resources necessary to fund all manner of state infrastructures, from roads, communications and government administration, to education, health and the military.

The session will finish with a short discussion of a central paradox that is of crucial significance for the problem of the long-term sustainability of human society. Many of the features of modern societies that we most value depend on the society of individuals. But this form of society is relatively new, and depends upon the continuance of effective nation-states, upon economic growth and a high and continuing throughput of energy and materials.

Main Reading

Quilley 'Education for the anthropocene' [to be posted shortly ASK ME** if not there]

Quilley blog 'Identity politics, community, state formation and modernity in Europe and America: Some basic propositions' pdf **ON LEARN

Additional/Optional Reading

*Gellner *Nations and Nationalism*— chapter on LEARN

Weiner, S. *Rule of the Clan*

PART VI: Sustainability? Jump off, slow down, speed up?

11. Environmental Politics and Sustainability: from 'Limits to Growth', to 'Smart, Green Growth' to the 'Dark Mountain' and beyond

In this penultimate lecture, we will review the history of environmental politics and green political economy over the last 50 years. Starting with dawning of a new global ecological consciousness that emerged on the back of the space age, we will consider Meadows et al's 1972 *Limits to Growth* report, the subsequent policy discourses of *sustainable development* and *ecological modernization* (in the 1980s and 1990s) and more recently the preoccupation with *resilience*, the recognition of the *Anthropocene* the renewed (though sometimes tacit) discussion of limits to growth (the projects of *relocalization*, *Transition*, and *degrowth*) and the possibility of collapse.

Main Reading

**Quilley chapter 'Navigators of the Anthropocene' [On LEARN]

**Dryzek chapter from *The Politics of the Earth* [On LEARN]

** Turner and Alexander newspaper article 'Limits to growth was right'

<https://www.theguardian.com/commentisfree/2014/sep/02/limits-to-growth-was-right-new-research-shows-were-nearing-collapse> [LINK ON LEARN]

Interview with Graham Turner <https://permaculturenews.org/2015/09/15/my-interview-with-graham-turner-on-limits-to-growth/> [LINK ON LEARN]

Additional/Optional Reading

*Rockstrom et al article [ON LEARN]

Turner, G .(2014) Is Global Collapse Imminent. An Updated Comparison of *The Limits to Growth* with Historical Data http://sustainable.unimelb.edu.au/sites/default/files/docs/MSSI-ResearchPaper-4_Turner_2014.pdf [Link on LEARN]

Tim Morgan (2013) *A Perfect Storm. Energy Finance and the End of Growth.*
<https://ftalphaville-cdn.ft.com/wp-content/uploads/2013/01/Perfect-Storm-LR.pdf?mhq5j=e6>
[Link on LEARN]

12. God(s), Spirituality and the Meaning of Life: The elephant in the room

In this final session, the goal will be to bring the various threads and processes working on very different timeframes together. The underlying idea is that long-term sustainability requires not only new technology and better forms of regulation, but renewed sources of meaning. The session will introduce the ideas of 'epistemology' (how we 'know' things; theories of knowledge) and 'ontology' (the nature of 'being' and problems of meaning). We will look at the tension that arises from the fact that our increasing technical capacity to do things in the world significance seems to undermine our shared sense of purpose and existential meaning. Specifically, the session will focus on (i.) *re-enchantment and meaning*; (ii.) the problem of *relationality* and the balance between rights and obligations in our societal structures and (iii.) the promise of *new technologies* for reconciling 'small and beautiful' patterns of production and consumption with a continuing trajectory of technical innovation.

- (i.) MEANING: we will explore the extent to which perhaps the biggest obstacle to a sustainability transition is not lack of understanding (solution: education), or bad technology (solution: smart tech.) or even poorly designed institutions (solution: good governance; effective incentive structures) – but rather the 'death of meaning' and the tension between a scientific worldview (**logos**) that is essential for an adequate understanding of the ecological problems that we are creating on the one hand, and the mythological understanding (**mythos**) that grounds shared meaning ('ontology') and guides commonsensical patterns of behaviour. It will be argued that the human capacity for ritual may provide an important mechanism with which to reconcile science and spirituality; detached, materialist models of the biophysical world with more involved but meaningful worldviews and 'irrational' forms of behaviour and conscience formation.

- (ii.) RELATIONALITY: Drawing on a range of examples including the Basque cooking club (the 'Txoko'), we will examine how the innovation of new social structures might help partially to re-embed individuals in constraining and supporting webs of relationships.
- (iii.) TECHNOLOGY: Reflecting on recent technical developments, we will conclude by exploring the extent to which new technology can facilitate much more eco-cyclical, just-in-time forms of highly localized micro-production, stripping out a great deal of the energetic and material flows associated with modern life, whilst sustaining global connectivity and technical innovation.

Reading:

**Adam Seligman 2010 'Ritual and Sincerity' [LEARN]

Additional/Optional Reading

Quilley 2012 'Social Innovation and System Transformation' [ON LEARN]

READING LIST

- The ones in green are there online already.
- Those in Red, are there as hard copies and on order for electronic library. You will have to check what is available
- Some you may have to buy through Amazon. A '**B**' indicates a suggested purchase.
- Some of those not available you can track down on the internet – for instance there is something called **Z Library** that I understand you pay a small subscription and you can download pdfs of millions of books. I have no idea what the copyright status is – you will have to research that yourselves. I will indicate **Z** if the book seems to be available there.

** essential reading

*highly recommended

*Berman, M. 2000. *Wandering God. A study in nomadic spirituality* (NY: SunyPress) **Z B**

(Berman's books you will re-read a dozen times)

Berman, M. 1981 *The Reenchantment of the World* (Cornell UP) **Z B**

Bryson, B. (2008). *A really short history of nearly everything* (Abridged and illustrated ed.). Toronto]: Doubleday Canada. [LIBRARY]

Chaisson, E.J. (2001) *Cosmic Evolution: The Rise of Complexity in Nature* (Cambridge, MA, Harvard University Press)

****Christian,D (2011) *Maps of Time: An Introduction to Big History* (Berkeley, CA, University of California Press)**

Davies,P. (2006)*The Goldilocks Enigma* (London, Allen Lane) Z

****Diamond,J. 1999 *Guns Germs and Steel***

Dickinson, J. L. 2009. The people paradox: self-esteem striving, immortality ideologies, and human response to climate change. *Ecology and Society* 14(1): 34. [online] URL: <http://www.ecologyandsociety.org/vol14/iss1/art34/>

Elias, N., & Schroter, Michael. (1987). *Involvement and detachment* (Complete English ed.). Oxford: Blackwell. [ALSO AVAILAVBLE IN THE COLLECTED WORKS – SEE BELOW] Z

Elias, N., Kilminster, N., & Kilminster, Richard. (1991). *The symbol theory* (Theory, culture & society (Unnumbered)). London: Sage. [ALSO AVAILAVBLE IN THE COLLECTED WORKS – SEE BELOW] Z

Elias, N. On the Process of Civilization (Nee 'The Civilizing Process') Volume in Elias, N., Jephcott, E., Kilminster, R., Dunning, E., & Mennell, S. (2006). *The collected works of Norbert Elias* (Revised ed.). Dublin, Ireland: University College Dublin Press. Z

Elias, N. (1956). Problems of involvement and detachment. *British Journal of Sociology*, 7(3), 226-252. [ELECTRONIC RESOURCE]

***Evan Eisenberg (1998) *The Ecology of Eden* [Picador] [LIBRARY] B**

Goudsblom, J. (1992) *Fire and Civilization* (London: Allen Lane)

Gellner, E. (1983). *Nations and nationalism* (New perspectives on the past (Basil Blackwell Publisher)). Oxford: Blackwell. [LIBRARY: SHORT LOAN] B Z

Mennell, S. (1992). *Norbert Elias: An introduction*. Oxford, UK; Cambridge, Mass., USA: Blackwell.

*** McNeill, J.R. and W McNeill **** *The Human Web. A bird's eye view of human history* (Norton) Z**

Ong, Walter J. *Orality and Literacy: the Technologizing of the Word*. London ;: Routledge, 2002. Print.

Quilley, S., & Loyal, S. (2005). Eliasian Sociology as a 'Central Theory' for the Human Sciences. *Current Sociology*, 53(5), 807-828. [ELECTRONIC RESOURCE]

Quilley, S. (2013). De-Growth Is Not a Liberal Agenda: Relocalisation and the Limits to Low Energy Cosmopolitanism. *Environmental Values*, 22(2), 261-285.

Quilley, S. (2011). Entropy, the anthroposphere and the ecology of civilization: An essay on the problem of 'liberalism in one village' in the long view. *Sociological Review*, 59(Supp.1), 65-90.

Quilley, S. (2012). System Innovation and a New 'Great Transformation': Re-embedding Economic Life in the Context of 'De-Growth'. *Journal of Social Entrepreneurship*, 3(2), 206-229.

Rockström, J., W. Steffen, et al. 2009. Planetary boundaries: exploring the safe operating space for humanity. *Ecology and Society* 14(2): 32. [online] URL: <http://www.ecologyandsociety.org/vol14/iss2/art32/>

Seligman, Adam B. 2010. Ritual and Sincerity. *Philosophy & Social Criticism*, 2010, Vol.36(1), pp.9-39

Vaclav Smil. *Energy and Civilization: A History*. REV - Revised, 2. Cambridge: MIT Press, 2017. Print.

*Spier, Fred (2010) *Big History and the Future of Humanity* (Oxford: Wiley Blackwell)

Tainter, J. (2011). Energy, complexity, and sustainability: A historical perspective. *Environmental Innovation and Societal Transitions*, 1(1), 89-95.

Weiner, M. (2013). *The rule of the clan: What an ancient form of social organization reveals about the future of individual freedom* (First ed.). New York: Farrar, Straus and Giroux. **Z B – fantastic book. Buy it**

**Yuval Noah Harari (2014) *Sapiens. A Brief History of Human Kind* (Signal, M&S)

Learning Objectives:

At the end of this course, students will have

- a) a strong general knowledge of complexity theory in relation to Big History and more specifically, sustainability and the long term process of human development;
- b) a firm grasp on the eight major “thresholds of increasing complexity” over time;

- c) general abilities to explain important events and ideas from within each threshold;
- d) the capacity to see and explain the bigger history of activities, objects and ideas;
- e) a basic understanding of Big History's role in looking to the future;
- f) a capacity to understand the links between various thresholds;
- g) an understanding of the successive phases in human development as linked *ecological/energy regimes, patterns of social and economic organization* and processes of *psychological acculturation*.
- h) A broad understanding of sustainability as a problem of reconciling social complexity with ecological integrity.

Achievement of Objectives:

- a) a strong general knowledge of complexity theory in relation to Big History, sustainability and long term social development;
 - a. Lectures
 - b. reading *Maps of Time* and/or *Sapiens* the foundational books in Big History.
 - c. Weekly readings
- b) a firm grasp on the eight major "thresholds of increasing complexity" over time;
 - a. Achieved through the "team poster". Each group of 2 – 3 students will focus on one threshold, make a poster and do a short presentation in tutorial.
- c) general abilities to explain important events and ideas from within each threshold;
 - a. Achieved through the weekly diary process that will engage with weekly topics in creative and innovative ways in tutorial.
- d) a basic understanding of Big History's role in looking to the future;
 - a. Achieved through the encouragement of pattern recognition, identification of complexity and energy limits and a final lecture on looking toward the future.
- e) a capacity to understand the links between various thresholds;
 - a. Achieved through the journal process and the team poster exercise.
- f) and to identify the connections with environmental studies and Big History.
 - a. Achieved through the reflective contribution that will discuss connections between environmental issues, long-view thinking, energy, complexity or the anthroposphere.

Expectations:

The instructor and students will participate in all classes. Students will come to class prepared by having read the required text and all supplementary materials provided by the instructors. Students will participate meaningfully through regular structured group work in tutorials. Students will hand in assignments on time and will abide by the rules of the university regarding plagiarism and academic integrity. The instructor will assess all student work as objectively as possible and deliver grades to students as expeditiously as possible.

Attendance & participation: policy and sanctions

Attendance at lectures is highly recommended. Registration will not be taken, but you will not do well if you don't attend.

Attendance at the six tutorials is **compulsory**. Students will lose 2% for each session missed (unless the TA is notified in advance with a good reason and gives permission)

Course website:

Course information will be delivered through the UW-LEARN system. Through this website students will submit assigned work, receive feedback and access additional course materials.

ASSESSMENT:

PLEASE NOTE: LATE SUBMISSIONS MAY BE SUBJECT TO A DEDUCTION OF UP TO 1% (OF THE TOTAL MARK FOR THE COURSE) PER DAY.

Please see a separate sheet on LEARN

Summary

- *Individual participation in work groups: 10%* (TA will monitor your individual contributions over the whole semester)
- *Weekly Group Work: 10%*
- *On-line viewpoint diversity exercise: 10%* (see instructions on learn)
- *Weekly diary, annotated bibliography and reflection: 30%*
- *Term essay: 40%*

Individual Participation 10%

Students will be required to attend participate in workgroup activity each week through thoughtful discussion and contributions

PLEASE SEE NOTE ON ATTENDANCE AND SANCTIONS ABOVE

Weekly group work: 10%

Group submission of their 'group summary' to Dropbox.

Viewpoint diversity exercise: 10%

Students should do the viewpoint diversity exercise developed by the *Heterodox Academy* and submit a printed record of from the site to their TA in the tutorial in week 5 or 6. The link will be on Learn. It should take a total 2 hours **staggered over five days**.

Weekly tutorial diary, annotated bibliography and reflection 30%

For the first nine weeks, students should write a very short (250 words) *annotated bibliography* and *reflection* summarizing the essential take out from the lecture and whatever readings they have done. To this should be added a compilation of all the completed *assignments and activities done in tutorial*. The assignment should include an **introduction page**, that introduces the overarching themes, ideas and topics that will be covered in the portfolio; and **conclusion** page that situates the journal in overarching themes of the course and the student's learning outcomes.

This will be submitted **as a single document ONE TIME ONLY** on LEARN using the electronic drop box

Students are STRONGLY ADVISED to do this as they go along, week by week.

Term Essay (40%)

Write a 2000 word essay on one of the following topics. The essay should be submitted on LEARN in the electronic drop box in week 12. **PLEASE SEE NOTES ON ESSAY WRITING AND REFERENCING BELOW**

- a) What is the role of Big History in environmental studies and thought?
- b) Why is it useful to look at things from afar and close-up? Provide examples of when this may have helped you, or others, in understanding a problem. How does this theme relate to Big History and humans and to the project of sustainability?
- c) Outline a Big History analysis of a topic of your choice (**with approval from your TA**) – e.g. disease, brewing, music, pets, pizza, gender relations...pretty well anything you can think of. Be sure to look at the full history of that particular topic and take a *multidisciplinary* approach! Look at language, history, sociology, technical development, relation to social and economic complexity, ecological implications, possible future developments etc.
- d) Discusses and the nature of “complexity” and the role of “Goldilocks” conditions. What are the implications of these conditions for humans in the world? Why is it important to think about complexity and all of the special conditions that were necessary to lead to modern life?
- e) What is the “Big History” of you and your kin and kith? What do you feel intimately connected with over a long-view? What does Big History suggest you are connected to? How does this relate to humanity overall?
- f) What are the differences and similarities in methods used to study the past using physics, geology, biology and sociology? What advantages are there of using different approaches or all of them together? What approach is necessary for understanding

humanity's role and place in Big History? Do problems arise when using various methods of knowledge creation and understanding?

- g) Write your own 'short history of nearly everything'?
- h) Choose one object or activity and use it as a lens through which to explore and write an account of all, or some significant aspect of, long term human development? (it could be anything from the tomato, writing, the guitar, contraception, the biro ...pretty well anything). The important thing is to use it as a lens. It is not the history of the object per se, but what this reveals about more general patterns in human development.
- i) Critically review the Goudsblom's idea of the expanding anthroposphere. In your account refer to Elias's theory of civilizing processes and the 'triad of basic controls'.
- j) Critically review Elias's understanding of the relationship between the involvement /detachment and the expanding social stock of knowledge (and especially science). Refer to Elias's book and the essays by Quilley & Loyal and the book by Mennell.

Integrity statement: For all the term paper and the diary exercise (but not the poster) please print out the following statement and sign, handing in with a hardcopy of the assignment to your TA. **The assignments should also be submitted via LEARN. The statement is in the 'Assignments Document' on LEARN**

Assignment Checklist

Please read the checklist below following the completion of your assignment. Once you have verified these points, hand in this signed checklist with your assignment.

1. I have referenced and footnoted all ideas, words or other intellectual property from other sources used in the completion of this assignment.
2. I have included a proper bibliography, which includes acknowledgement of all sources used to complete this assignment.
3. This assignment was completed by my own efforts and I did not collaborate with any other person for ideas or answers.
4. This is the first time I have submitted this assignment or essay (either partially or entirely) for academic evaluation.

Signed: _____ Date: _____

Print Name: _____ UW-ID# _____

COURSE POLICIES

◆ **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, quizzes, tests, final exams); 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).

◆ **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. The University's guiding principles on academic integrity can be found here: <http://uwaterloo.ca/academicintegrity>. ENV students are strongly encouraged to review the material provided by the university's Academic Integrity office specifically for students: <http://uwaterloo.ca/academicintegrity/Students/index.html>

Students are also expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offense, or who need help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. Students may also complete the following tutorial: <https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial>

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>. 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>

◆ **Note for students with disabilities:** [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.

◆ **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. **Please note that help is available.** Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services <http://www.uwaterloo.ca/counselling-services> is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas

including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

◆ **Religious Observances:** Students need 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.

◆ **Grievance:** A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. See Policy 70 - Student Petitions and Grievances, Section 4, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please contact your Undergraduate Advisor for details.

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

◆ **Unclaimed assignments:**

Unclaimed assignments will be retained for ... [period of time*; or: “until one month after term grades become official in quest”]. After that time, they will be destroyed in compliance with UW’s [confidential shredding procedures](#).

◆ **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.

◆ **Recording lectures:**

Use of recording devices during lectures **is only allowed with explicit permission of the instructor of the course.**

If allowed, video recordings may only include images of the instructor and not fellow classmates.

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.

ESSAY WRITING AND REFERENCES: IMPORTANT NOTES

The bottom line is:

1. Don’t plagiarize. If you use sources, always acknowledge them with a full reference in an appropriate academic style (APA, Chicago etc.)
2. If you quote directly using someone else’s words, then use quotation marks and include a PAGE reference.
3. For online material give a URL and the date accessed
4. Don’t plagiarize. If you have any doubts, ask!
5. If in doubt, find out about using TURNITIN to check your own work.

Students are advised to consult the resources available in the library:

<https://uwaterloo-ca.proxy.lib.uwaterloo.ca/writing-and-communication-centre/resources>

How to avoid plagiarism: <http://subjectguides.uwaterloo.ca/avoidplagiarism?hs=a>

Students are also advised to complete the academic integrity tutorial

<https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial>

The APA reference guide is also available on LEARN