

Report on the 2014 Spring Term

Ashby Dialogs on Human Adaptation: Past and Future

By

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and the
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For

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Associate Dean
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Management Summary

Introduction

During the spring term of 2014 four Ashby Dialogs on Human Adaptation, Past and Future discussed the prospects for human adaptation to current and future incidents of changed. Although most of the discussions evolved around environmental changes, technological and socio-cultural changes were also considered. The discussions were attended by faculty organizers of the dialogs (Joel Gunn, Charles Egeland, Malcolm Schug, Gwen Robbins Schug, Art Murphy, Eric Jones, and Steve Kroll-Smith) and students drawn from the participating disciplines (Anthropology, Biology, Interior Architecture, and Sociology). The students participated in the discussions and were also given opportunities in class to express their thoughts in written and verbal formats. Everyone was asked to research the topics of the dialogs by reading an article and viewing key video programs on the subject topic. Also available were books on each topic.

The sessions were held on Monday nights. A warm up session was held at 4pm in 203 Sullivan where videos and readings were reviewed as seemed helpful. At 5pm the groups retired to the Sullivan 2nd floor Atrium where food was served and moderators guided the conversations. Joel Gunn took notes.

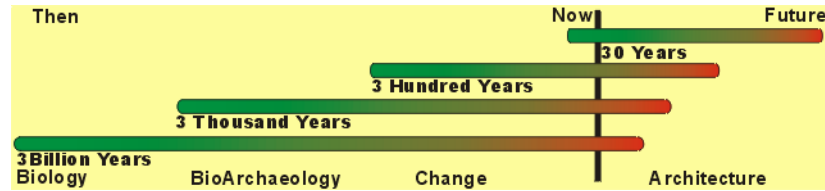
Two speakers were invited, Greg Wray and David Orr. Wray was cancelled due to a snowstorm. Orr was co-sponsored by a variety of campus organizations and had a large attendance. We spent \$1,000 on Orr, \$200 on books, and the remainder on food for the sessions, which were held during dinner time. The project was under budget and on time.

David Orr of Oberlin College, Ohio was invited to lecture the university and dialog participants on the sustainability program he and his colleagues and students have developed at his home university. In the near future there are prospects for applying similar sustainability principles to the so-called Lake Erie Crescent (Detroit MI to Youngstown OH, about 150 miles with several large universities and municipalities). This idea was particularly interesting since in our deliberations we examined what happens to societies facing substantial changes, usually collapse or reorganization. If any portion of the United States stands as an exemplar of these processes, the Lake Erie Crescent is certainly a prospect.

What did we figure out?

As one might expect, a great range of topics were discussed and many thoughts bearing on the issues of biological, cultural and future change were called forth. Notes are available in the appendices to this report and more extensive “impressions” are offered in the report proper. In this management summary, an attempt is made to tease out the key impression rising from each of the dialogs. These are primarily the impression that I (Joel Gunn) walked away with and there could probably be as many key impressions as there were organizers and attendees.

The sessions were arranged according to a time chronology as shown in this illustration: biology in the distant past, anthropology in the near past and present, and architecture in the near future.



Session 1—Biological Adaptations: Even small amounts of information on the genome such as relative rates of adaptation can help make plans for the future.

Session 1--Biological Adaptations: To say that there have been tremendous strides made in understanding of human biology and adaptive capacity in the last few years would be a complete understatement. Perhaps the most startling is that genes, once thought to be the key to all biological adaptation, have, based on decoding on the complete human genome, been found to be few in number, almost disappearing from the suite of adaptive capacities compared to other abilities, mostly in the realm of epigenetics and cultural behavior. However, what impressed me was that even as biological science sits on the threshold of a whole new understanding of human adaptation, even superficial insights offer tremendous help in understanding the scope of future adaptability. For example, the most adaptive part of the human biological organism is its ability to confront new threats through its immune system. If there ever was a preadaptation to unanticipatable circumstances, this would seem to be it, a lifebuoy for a species become a threat to itself through antibiotic spoilage and climate change.

Session 2—Bioarchaeological Adaptations: No adaptation is an island unto itself. All are part of a complex of adaptive interactions with multiple causes.

Session 2—Bioarchaeology Adaptation: How do cultures change? Current anthropologists are turning their thoughts away from an age-old idea inherited from 19th century history that civilizations collapse. Rather, it has become clear in recent years that cultures for the most part re-organize in the face of massive external threats. What are the shapes and sizes of these reorganizations? How can they help us look to the future? Something that was emphasized in our discussions from a number of points of view is the single causes are not appropriate contexts to think about these adaptations. In fact, one is left wondering if the old single cause arguments characteristic of the mid-20th century were what “caused” anthropologists to think about “collapse”. If you are riding the time train of one variable, you get a self fulfilling collapse when that variable goes away, automatically. Think multi-causal: think reorganization.

Session 3—Long-term Extreme Events: Humans, like their prehistoric ancestors, might adapt to a changed world, but it wouldn't be pleasant by current standards.

Session 3—Long-Term Extreme Events: Suppose the worst happens. Humans do not adjust their habits of carbonizing the atmosphere and oceans, a process that contributed to Hurrican Katrina and the destruction of New Orleans. The results could be a jump in

global average temperature to 3.6 degrees centigrade. This would make life on the terrestrial earth tenuous during the day and in deserts, deserts would gobble up greenlands. Could we adapt? In the book *Your Inner Fish*, Neil Shubin discusses early mammals who lived in the hot, hot times of the dinosaurs. They were little, primitive mammals something like meerkats that were just putting on some hair, a mammalian feature. How did they escape the heat? By living under ground in the day, coming out at night. That sounds like a horrible prospect for humans, one might say (but think about the opening scene in *Star Wars*), but there is an interesting, more recent parallel. About 10,000 years ago the climate of the earth rose about 5 degrees C from a level that humans had been accustomed for about 2 million years: from ice age to non-ice age. It must have been a horrible experience. People had to give up the comfortable Paleolithic life, painting in caves and all of that. But they soon adapted: painting on the walls of houses. Now we regard the Paleolithic way of life as primitive and undesirable. “Adapting to the new normal” is a phrase that gets passed around these days. We might adapt to a new dinosaurial world, but it would not be easy for those adjusted to our present world. New Orleans after Hurricane Katrina a reasonable understanding of how such an incident might unfold.



Session 4—The Future as Architecture: Many a valiant architect is taking on the task of moving building design toward a more sustainable future, but we need to scale the enterprise up massively to make a difference in time to avoid major dislocations in world cultures.

Sesion 4—The Future as Architecture: Because they build structures that will be around for decades or centuries, architects have incentive to look futureward more than most of us. Many of them understand they can help avert the worst that might befall human kind. Since over half of the energy used in the US goes to heat houses, they have it in their power to undue much of the worst possible of the future. David Orr says that the future of sustainability is won one building at a time, and maybe now one community at a time. Anna Marshall-Baker and Greg Lewis are taking on problems such as making list of green resources so that busy architects can turn their attention to designing green buildings with confidence and efficiency. There are surely other similar lessons beyond the one-at-a-time philosophy that is clear across the board in the architectural plan of attack on the future. Greg thinks that we are not seeing the massive scale of change necessary to change the future in time to make a difference. He uses the example of a plan generated by an American architect for the Chinese government to house half a billion people in green cities, half the population of China. So far as anyone can tell at present, the plan failed. It is an idea whose time has come, however. (see recent UN report on urgency <http://www.un.org/apps/news/story.asp?NewsID=47569#.U1EvXVVhzAQ>) How do they and we do better?

Who can do the job of managing responses to long term change?

The 2014 Ashby Dialogs on Human Adaptation—Past and Future, have shown that a range of interdisciplinary faculty and students can gather and work out a theory of community response of long term extreme events in the future. We did not practice to determine whether such ideas are implementable. However, the work of David Orr, now well ahead of most communities in this country and perhaps the world because of the collapse of the auto industry in the US, and Anna Marshall-Baker, who is mustering her students to compile lists of green materials, show that the one-at-a-time spirit is evident across some swath of the nation.

Thank you Ashby sponsors and participants.

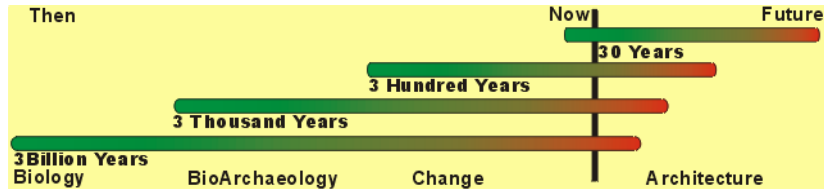
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The Shape of Things to Come

The central idea of the dialogs are that humans have adapted to changing conditions at time scales of billions of years (biology) and thousands of years (bio-archaeology), continue today to do so (anthropology), and considering the far reaching plans of the architects to plan for the future of life as regards housing and energy, will hopefully continue to do so in an intelligent manner in the future.

At one level, the dialogs can be considered an academic discussion group. At another, they are an attempt to see who and what can be recruited as a work force in terms of understanding and implementing strategies



and tactics to resolve issues raised by fundamental changes in technology and environment. For the latter exercise, we recruited faculty and students from four academic disciplines and their related student organizations. This model, however, could be extended to other disciplines tailoring the work group to specific conditions. Also it could be extended outside the university. An example is to be found in the worldwide GLOBE project which recruits high school students to collect data on and analyze data from changes in local environmental conditions.

Thanks to Dean Hansen, we had a web site at <http://aas.uncg.edu/ashby/human-adaptation/index.html> to orchestrate the dialog sessions. There we announce the dialogs and lectures, who is involved in the sessions as moderators, who the involved student organizations are, and various related information on readings and videos to research the topics of the sessions.

Our hope is that the ideas emerging from these discussions will help UNCG students and faculty make a difference in how the world of the future changes for the better and for a more sustainable path.



Report on the 2014 Spring Term

Ashby Dialogs on Human Adaptation: Past and Future

Introduction

The Ashby Dialogs on Human Adaptation were held in four sessions between January and April of 2014. A web site was maintained and updated as events unfolded to coordinate activities and provide information on background research for the participants:

<http://aas.uncg.edu/ashby/human-adaptation/index.html>

Charles Egeland maintained a Blog at <http://cpanthro.blogspot.com/>.

Session 1: Ashby Dialog on Human Adaptation: Past and Future— Biological Adaptation

Moderated by Malcolm Schug, February 3, 2014, 5pm

Introduction

The attendees spent the 4-5pm hour in Sullivan 203 viewing the videos (see Ashby Dialog web site). Malcolm framed the discussion in genomic information that might have been presented by Greg Wray had a snow storm not cancelled his lecture, and Malcolm's own research. The 5-7pm period was spent in the second floor Atrium of the Sullivan building circled in discussion of the information on genomics and human adaptation.

Impressions

Joel Gunn--What impressed me is that there is actionable intelligence in relatively uncomplicated, qualitative genomic information. For example, Malcolm reported that in spite of serious setbacks in the findings to date in terms of genes and adaptation, it has been found that the most rapidly evolving part of the genome is its immunological aspect.

Looking down the road to the not-so-distant future one can see that there could easily be dynamic constraints on human populations caused by changes in climate (Bob), political disruptions, and an evolving 3rd demographic transition (Gwen) to a post-antibiotic world. The finding that human immunity is the fastest adaptive capability that human possess suggests that we probably have a lot of potential as a species to survive these changes.



Unfortunately this might also forecast a lot of mayhem. It reminds me of a book published a few years ago call *Survival of the Sickest*. In this book, author Sharon Moalem recounts how modern human populations are burdened in old age with various maladies because past insults have been adapted to by getting past reproductive age without regard to long term impacts of the adaptations. An example is iron accumulating in cells (hemochromatosis). Apparently this condition afforded some immunity the bubonic plague organism and so provided for survival through the reproductive years during the Middle Ages. It, however, eventually kills its hereditary bearer in older age. In modern populations this becomes a public health issue because of great longevity. Perhaps a future project for the genomic community might be to foster genomic solutions to problems that avoid these longevity errors that nature falls into.

Your Inner Fish on PBS Television

PBS television is carrying a special 3-part series on *Your Inner Fish* (April 9th and thereafter at 10pm), the book we had reference to in the first Ashby Dialog. It is well timed to tie our discussion together in the aftermath of 2014's Ashby Dialogs. If you really want to see what they mean when they say, this is Neil Shubin's quirky view of the human body, watch the preview <http://video.uncvtv.org/video/2365206932/>. If you think zombies are cool, try fish reading newspapers.

Session 2: Ashby Dialog on Human Adaptation: Past and Future— Bioarchaeological Adaptation

Moderated by Gwen Robbins Schug and Charles Egeland, February 24, 2014, 5pm

Introduction

Perhaps the main insight gathered from Session 2 was that Jared Diamond is operating from essentially, or in part, a 1930s model of anthropology, a perspective in which authors chose a single driver such as population, climate, migration, and argued for that as shaping the origin and destiny of a civilization. Since the 1970s anthropologists have tried to take on a more multi-causal perspective. This of course does not make nearly so exciting a tale as the old uni-causal arguments, but Diamond appears to have driven this boat to the max, probably to please his editors. Our challenge in the multi-causal 21st century is to make more broadly based models exciting and convincing.



Session 3: Ashby Dialog on Human Adaptation: Past and Future— Cultural Adaptation in Extreme Events

Moderated by Eric Jones, Art Murphy, Steve Kroll-Smith, March 24, 2014, 5pm

Introduction

Eric Jones, Art Murphy and Steve Kroll-Smith guided us through the topic of how humans, in their experience, adapt to extreme events. From that lesson we hoped to examine what adaptation might be like in the cases where ordinarily slow, worldwide processes become speedy, as in the prospects for global warming, economic changes, and technological shifts.

In looking towards human adaptations to quick and slow changes. Some concurrent changes are worth noting.



1. The American Association for the Advancement of Science (AAAS) was launching a new public relations initiative relative to global climate change (March 18, 2014 Tuesday Science Section of the New York Times.) The article is short and direct. They are going to engage the services of Mario Molina who discovered the CFC threat to the ozone a generation ago and sparked the successful, worldwide effort to curb production of the CFC ozone-thief that could have killed all terrestrial life. In an interesting way, this balances the battle between scientists and climate nay-sayers who have employed the services of the same people who obscured the deadly cigarette threat a generation ago. The AAAS plan is to admit past mistakes, mainly timidity, and to present the case for human-caused climate change strongly and swiftly to the public, melting glaciers, rising sea level,....



2. In the social change domain, robots are becoming cheap and intelligent enough to dis-employ large segments of the world's population. Social scientists are turning their attention to what would happen if this were so. ([link, http://www.npr.org/blogs/alltechconsidered/2014/03/17/290888529/with-googles-robot-buying-binge-a-hat-tip-to-the-future](http://www.npr.org/blogs/alltechconsidered/2014/03/17/290888529/with-googles-robot-buying-binge-a-hat-tip-to-the-future))

These and other issues are momentous questions we might be able to help with if we think in terms of the studies that Eric Jones, Art Murphy, and Steve Kroll-Smith have made into how humans cope with changes. I plan to attend a conference in April with

some people from the AAAS climate change group. Perhaps I can deliver a message from us.

Quotes from Katrina survivors:

“I hope people will be inspired by us.”

Kimberly Roberts, Katrina survivor and unexpected documentary camera person, adapting to a sudden change. In *Trouble the Water*, Sundance winner.

“They came out of this hurricane scarred like everyone else, scared like everyone else, ... but there is a regeneration of their own humanity. ...they were there in the middle of the hurricane.”

Danny Glover, on New Orleans and “*Trouble the Water*”.

Impressions

Energy Shortages--People will drop back on some of the older, more energy efficient ways as in Cuba and Iceland.

Uprooted Populations--New Orleans/Katrina shows us what happens to people who are not economically rooted in an area that suffers a disaster may not be able to return. They are turned from fleers to emigrants by their lack of compelling reasons to return. I see this in the "collapse" of the Maya Lowlands. By the 9th c. drought, the interior cities were moribund relative to trade, so people went to the coast where the trade relations were vibrant, and stayed.

Adjusting to the New Normal--when the Holocene arrived 14,000 years ago, people probably thought it was a disaster because it disrupted the lives they had been living and perfecting for about 2 million years as hunter/collectors. Now we think that the Holocene life with urbanism, intensive agriculture, space flight, etc., is wonderful. However, we are yet again facing a new world, the Anthropocene. Will we one day look back on Holocene life as "primitive", and Anthropocene life as magnificent? What will life adapted to the Anthropocene look like? More efficient, more frugal?

Class--Class seems to be a decision made in relatively recent times, the last 5000 years perhaps, that helps to organize people in circumstances where resources are relatively reliable (Jessica Haynes). The current system privileges wealthy classes (Art Murphy). Wealthy classes make decisions based on convenience to commerce and control of populations rather than

human welfare (Steve Kroll-Smith). Will classes be characteristic of the Anthropocene? Some people think Anthropocene weather will be more unstable: more tornadoes, bigger hurricanes, less water storage in snow pack, more water racing in floods. Will these instabilities tend to degrade class systems as it seemed to do in to the Incas of the Andes?

Session 4: Ashby Dialog on Human Adaptation: Past and Future--David Orr Address and Architects of the Future

Moderated by Anna Marshall-Baker and Greg Lewis, April 7, 2014, 5pm

Introduction

The grand finale of the Ashby Dialogs on Human Adaptation: Past and Future came as a package of two. Part 1 was David Orr's address on a sustainable future through education, a necessary component of the architectural world that humans have lived in for 2.5 million years. Orr is a world renowned architect and futurist, sometimes call an "Environmental Philosopher. In his talk, he showed that the future of a campus can be changed by fighting one battle at a time: if an architecture building needs to be built, advocate for a sustainable design. He is currently working on a design to make the whole area from Detroit, Michigan, to Youngstown, Ohio, the Lake Erie Crescent, a sustainable area.

Part 2, on the Monday April 7, 5pm final Ashby Dialog, Anna Marshal-Baker and Greg Lewis lead us into the future through an understanding of how the architects are transforming their profession in the face of changing climate and energy demands. While Orr's address painted a seriously hopeful view of the future, our subsequent discussion delved into the difficulties that arise in such efforts from insulation of existing housing stock to building extravagant new, green housing.

David Orr Address to the University, Curry Auditorium, April 3, 2014, 2:15pm

David Orr's discussion focussed primarily on the Oberlin College sustainability program that has been going on for a while. It was started with Orr telling his architectural students to design a sustainable building and he would raise the money to build it. This managed to get done, in fact very well. Since they have expanded the program to a large part of the campus including the library and humanities building. They are trying to incorporate the whole range of academic disciplines under a concept they call "full spectrum sustainability". Their logo is a prism with the light of The University shining in one side and the colors of the rainbow coming out on the other with disciplines assigned to each.

In the last two years they have expanded their concept to a whole new dimension. Rather than just Oberlin College, they want to incorporate the whole area around the southwest

corner of Lake Erie from Detroit to Youngstown, Ohio, otherwise know as the Lake Erie Crescent (see map). This will involved multiple cities and universities

Of course this fit very well with our theme, Questioning Collapse. What has happened to Detroit, Youngstown, and everything in between over the last 30 years is a classic cultural collapse, and one might suppose that in this sustainability movement, we might be witnessing the subsequent reorganization of the society.

At breakfast this morning, I (Joel Gunn) asked David Orr if there was an explicit strategy behind this soon-to-be vast enterprise. He said that there was no universal strategy. Work with what you have locally, he said. If architecture needs to be done, press the authorities to do it responsibility and sustainability. If hydrology or electricity needs to be managed, see that it incorporates sustainable principles.

It was one architect's vision of how to change a culture, American culture in this case, toward something that is more compliant toward mutual survival of life on Earth.

Architects of the Future

Moderated by Anna Marshall-Baker and Greg Lewis, April 7, 2014, 5pm

Impressions

In our quest to get insights into how people function who are compelled by the duration of their products, buildings that last from decades to centuries, cope with the future, I felt like Anna and Greg's discussions reflected Orr's attitude in their actions. Greg's experience has taken him through not only building green houses in Roanoke VA, but also to Haitian disaster relief. There he has seen the politics of policy waste, maybe on a bigger scale that we saw it in the 3rd session with Katrina. In a very down-to-earth comment, Greg says that building green is very sexy, but the most money is to be made in sealing and insulating the existing housing stock.

The architectural industry does have an over arching plan to tackle the energy and green house gasses problem titled the "2030 Challenge". It calls for ramping up the construction by percentages of greenness on a year-to-years basis till 2030 when all new construction will be green. All such initiatives are running in to political opposition from the face of current society, basically the fossil fuel driven society and hierarchy that have no interest in and are actively opposed to greening the society. Meanwhile the coal industry is ripping the tops off mountains in the Virginias, demolishing whole landscapes and human populations, not to mention nature and its denizens.

Anna brought us even closer to the ground in a discussion of how to green the material purchases for a project. Such a varied range of materials goes into any house or building that the architect does not have time to check out the manufacturing chain of every item used: what is the carbon footprint of the nails, etc.? She has started her students compiling lists of green approved materials that can be used to make this process practical for the practicing architect. Presumably there are other projects that students can

do that will not only make their future and those of fellow architects easier and practicable, but will set their minds toward the importance of understanding the carbon footprint of nails, etc.

In the end we do not see that suddenly the architectural profession has turned its self around and has the concern of the Earth up front. We see individual, local, practitioners taking steps to change parts of the process of housing populations toward sustainability. It's just more evident because of the time frame that architects work in, the future. I suppose there are also architects out there who are selling the earth short for their own gain, the fossil fuel industry pharmaceutical lords.

Reading Anna's article for the Dialogs, I was very impressed by how they do have some theories of operation, how to conceptualize and remake structures in the image of nature. Yet, as David Orr said, on the ground it is slugging it out one building, one political decision, one disaster, one cultural collapse at a time. Something that struck me during last night's discussions is that something may be needed here, or already exists and I just don't know about it. You might call it metatheory, a theory of how to think about theory, something like metadata, data on how to think about data. There is probably some sort of structure to this theory, like a continuum from complete *ad hoc* action at one end, do as you have to in the local situation, to complete, unbridled, reign of thought at the other end. An example might be the Eco-Aesthetic house design in which the house without a center is composed of a number of interventions on a landscape that conform to local undulations, but, I assume, serve divers purposes for the inhabitants.

One utility of this theoretical tool would be to keep us aware of the range of options available to us to address the growing range of ecological and social problems we face as a culture, society and person, perhaps better to apply the more appropriate ideas at a given time and situation somewhere between the practical and the fanciful.

In the McDonough video we saw, a range of proposals from a building, the one David Orr showcases at Oberlin, to a project he designed for the Chinese government, a dozen cities to accommodate a half billion people. An intermediate project, to build a village in China encountered problems with material quality. No one knows what has happened to the dozen-cities design, but it could be political hold ups. We shall see how the architectural continuum proceeds from fanciful to practical, if it does.

In a strange sort of way, this meta-theoretical model recapitulates human evolution, the product of human evolution. When humans first appears as *Homo habilis* 2.5 million years ago, all politics was local and confined to groups of 30 to 150 people. What we have added in that time frame is the ability to be fanciful, to construct everything up to the Eco-Aesthetic home. Unfortunately we have had some bad intervening experiences, especially in the last half century. Experiences that threaten our species. This will be our first such test at our hand. Will we pass it?

Appendices

Appendix 1: Notes on Session 1

NOTES (JG)

4pm

Watch

Eichler, more easily understood after reading the Stapley et al. article.

Tichkoff, graph of world wide genetic variation

African lactose tolerance, about 5k bp

Malcolm intro: studies are not replicable,

FOXP2, headlines and realities

genes fit to environment, low variation

potato starch fruit fly (ff) proteins, lots of variable in ff

why variation is fit to environment

1. good to be genetically variable

2. neutral variation, selection can't act on it.

adaptationist vs neutralist controversy

in the end a bit of both

Allen Wilson, regulatory element that couldn't study

pet genes ADHD, ... fitness

recombination and variation, evidence for adaptation in the genome

how often recombination occurs, powerful

influence of ff genome molded by env

1000 genomes done now

***pathogen pressure drives a lot of it

human population growing and climate changing, train wreck potential

3rd generation, human genome in a day, on horizon

Wray, scan just the regulatory part of the genes our thumb longer than chimps, longer limbs, brain case

Tishkof, pockets of adaptation,

pop genetics test pass over pockets, 10k years

signals, better look under 10k years,

FOXI2 adaptation to climate

adaptive stories, immune function, about all

genes, dangerous, panglossian paradigm

pet gene danger

blood groups not there, maybe soft selection

noise of drift and founding events

break, eating break at 6pm

Ask everyone to explain what they got out of the discussion of biology in terms of what concepts might be applied to future conditions of the human / earth system

how did this change your view of human genetics, cope with

Katherine--sociology not so much into genes

Charles--pet gene

Eric--all deviance is constructed

Bob--climate genetics not relevant

Gwen--don't have to rely on selection

Bell--genomics pure science, how function,

Gwen--pure science dead, applied approach to

necessary, plant engineering is part of the

adaptation, getting traits to stick

Joel--population constraints,

Bell--micro organisms that eating uranium

Malcolm--cycles of genetic determinism, wax

and wain, predispositions, not determination,

professional biologists not immune,

Bob--interactionists

Eric--more out of gene regulation or genes,

Bell--genomics is fishing, not hypothesis based science

Bob--something took a simple hominid and turned it into something else

Gwen--Warrior gene, aggression, replication not there

Malcolm--complex trait analysis, traits have a genetic basis, assumed but not the case,

concocted traits, perceptions and traits,

Malcolm--four genes control chocolate lab coat

color., 2 fixed, to have to interact, very simple

system

Gwen--genetic determinism like environmental

determinism, also cyclical

Gwen admonishing, Diamond f**k, ignored or ignorant

Appendix 2: Notes on Session 2

NOTES:

Questioning Collapse--Which is to say, cultures never "collapse", they reorganize.

5pm discussion lead by Gwen and Charles

Gwen, Harappans (Indus civilization) left

everything, script, ceramics, standardizations,

moved to Ganges and down into the

subcontinent. Maybe discussed by Karen

Armstrong in The Great Transformation?

The first time someone reached for a head

of wheat and some of the kernels staid on

without falling to the ground, humans began

to change the wheat plant.
 Gwen, Oregon PhD, climate change explanation, vulnerability to climate, bigger picture, how determination has shaped anthropological thought.
 Charles, early humans at Olduvai reacted to changed, middle paleo Neanderthal, successful for a long time then gave way, determinism more pervasive in Paleolithic, dumb cousin of humans, but culture could have important role there
 Wheat domination posited by JD, only after W.W.II mechanization of American agriculture, potato domination
 Typical of unidimensional explanations, mid 70s move away, from typological, herd, protection,
 What is the consequence of rejecting JDiamond's 1930s anthropology paradigm?
 Europe and the people without history 1982, better approach, social and historical background, if
 embrace JD, get western ethnocentric point of view, then what are the alternatives?

Hohokam--adapted to harsh environments historical context, building story of self destruction while destroying it.
 How did your thinking change on finding out that Diamond missed or dismissed archaeological records of rats eating palm nuts?
 Assume resource shortage causes conflict (what if future climate science assumes this?)
 Not true that will automatically have an increase in conflict
 In Harappa, violence increased but followed lines of social structure
 Dynamic apportioning (Gwen has a list of historians working on this) brings us back to what systems interacting, during periods of collapse, usually do not collapse, usually go into long decline
 Indus civilization ignored climate change.
 In west Asia left cities to get closer to the land, can't support complex society, complexity re-emerged later.
 What was your thought?

Appendix 3: Notes on Session 3

NOTES:
 some of the older, more energy efficient ways as in Cuba and Iceland.
 Uprooted Populations--New Orleans/Katrina shows us what happens to people who are not economically rooted in an area that suffers a disaster may not be able to return. The are turned from fleers to emigrants by their lack of compelling reasons to return. I see this in the "collapse" of the Maya Lowlands. By the 9th c. drought, the interior cities were moribund relative to trade, so people went to the coast where the trade relations were vibrant, and stayed.
 Adjusting to the new normal--when the Holocene arrived 14,000 years ago, people probably thought it was a disaster because it disrupted the lives they had been living and perfecting for about 2 million years as hunter/collectors. Now we think that the Holocene life with urbanism, intensive agriculture, space flight, etc., is wonderful. However, we are yet again facing a new world, the Anthropocene. Will we one day look back on Holocene life as "primitive", and Anthropocene life as magnificent? What will life adapted to the Anthropocene look like? More efficient, more frugal?

Class--Class seems to be a decision made in relatively recent times, the last 5000 years perhaps, that helps to organize people in circumstances where resources are relatively reliable (Jessica). The current system privileges wealthy classes (Art). Wealthy classes make decisions based on convenience to commerce and control of populations rather than human welfare (Steve). Will classes be characteristic of the Anthropocene? Some people think Anthropocene weather will be more unstable: more tornadoes, bigger hurricanes, less water storage in snow pack, more water racing in floods. Will these instabilities tend to degrade class systems as it seem to do in the Andes?
 Change--Notes and Thoughts on the 3rd Ashby Dialogs Session
 Has the adaptive attention span of humans changed because of urbanization?
 What was their (Kim's) adaptation get boat to move less able relatives around get into high buildings, school, not naval station
 Jessica --Network cultures are more resilient in the face of change, Jessica's paper
 Art Murphy--Rich are good and the poor are not

Steve, Oliver-Smith, Spanish, networked to dominant colonial
 Jessica --effect of colonialism on disaster
 Joel Gunn--Not monocausal model, if there is culture, then there will be disasters
 Eric Jones--revenue streams created by recovery shaw and haliburton, friends of bush admin, commiseration becomes, disaster capitalism,
 faith based recover, receiving funding, money stays in church, corporate
 Joel Gunn--humans adapting to the Holocene disaster, human about to adapt to the Anthropocene disaster, Holocene so adapted that which was bad is now good
 Eric Jones--people afraid to leave because loose animals and belongings, Cuba, military also in when governments get it,
 Steve K-S--we lost what came before, Peru stilts for New Orleans
 ???--race and class in Sandyhook as well.
 Art Murphy--Villahermosa flooded every year, flood getting into an upper class neighborhood, made it a disaster better off psychologically two years after the flood
 Alexa Uberseder--Kim's mental health, personality suited or cultural?
 not upset by dead uncle, indicative of the world she lived in.
 Art Murphy--whole life bravado part of subculture
 probably other Kims, what is it about the social that made her/them that way?
 Eric Jones--Hurricane Andrew, finding, informal support, class division, don't run in the same worlds
 informal resources, put roofs on house, nothing from insurance companies
 far flung make more use of insurance and gov assistance

Joel Gunn--Austin created classes in 1920's, created our social disaster
 ???--recovering equality
 Steve Kroll-Smith--recovery is fraught, getting back to where you were before, back on your feet and back to where you were before are different
 in San Francisco make an effort to keep them in their place, it was an industrial town, in their place and able to work?
 Finance does not care about keeping them in their place because there is no work
 Joel Gunn--Robots cheap and easy, could be a lot of populations without employment, what happens when large populations are without roots as they had in the industrial era?
 Eric Jones--In New O could not go back without a house, many cannot afford to go back
 merchants have always been there to exploit disaster
 Anna M-B--lots of high end and businesses did not come back as well,
 its hollow, so much empty space
 some companies not moving back, so employees aren't going back
 interiors are mobile
 ???--work for water, South Africa, return to precolonial vegetation increase water by 30%
 Anna M-B--Cuba, Soviet Union disaster, power of community about their work around, no tractors, oxen, siesta during oxen stop in hot afternoon, long term,
 not momentary disaster
 Iceland abandoned back to traditional economy, doing well
 Art Murphy--coconuts carried in years of hurricane, Micronesia, in one of the old Prentice Hall ethnographies

Appendix 4: Notes on Session 4

NOTES:
 Moderators Greg Lewis, Anna M-B
 4pm warmup
 Greg, are we making enough progress? not apparent
 Anna, 2030 challenge, architects rising to the challenge
 cradle to cradle eclipsed,
 Thomas Berry, eco-theologian

Malcolm's--epigenetics where it is at
 Gwen--community adaptation
 Diamond, public level, humans affect env and survival
 right or wrong, impacting the climate
 Eric--policy is bad (Greg), short circuiting, FEMA trailers,
 are we flawed by preparation?

Lisa--how can you put a boundary on nature
(lisa)
Greg, too much money, don't look out a
generation or more, we don't do that
Anna--New O--fake city
McDonough design problem
China scale did not come off, TED talk from 10
years ago
2030 challenge, carbon neutral
global challenge
1/2 the regional average for the building of that
type
ratchet down every five years
low tech solutions
site scale and community scale
buy renewable energy
cities take the land, a little help from the federal
government
tax breaks scale up
all federally funded buildings
c2c, not back to grass huts, another cycle,
technical nutrients, take the offending
dies out, use a new color in that are recyclable.
solar income, wind, waves,
What to do about the scale?
avenues and strategies that play into the design
Oberlin proof of concept
clean water in a tank
work in China, tried to make a village, quality
problems
talk to students, aspirational,
not green materials, in c2c designs, rubber,
jg--need a meta-strategy to theorize about the
scaling up process.
has to be designed early enough in the process
windows in the right place for passive heating
products list, only ask, cost and timing, not what
is in it, is it toxic?
need leadership
bricks in China, enough for 1/2 billion people?
McDonough understood Ford but not China
culture?
Art, cultural problem? somewhere
culture says carrying water in 5 or 1 gallon
children carry water
scaling down, part of a house
Greg--health care facilities in Haiti, US
standards irrelevant in Haiti
leading with humility American architects really
badly
half million dollar facility, not in neighborhood
design from the ground up, important,
address the problem in the existing building
stock, so much
new is sexy, but putting money in people's
pockets

the extra value of externalities, things that don't
show up on the balance sheet
money is best spent if the house fits the
neighborhood, if too expensive
investment is at risk
more interested in aesthetics than living, so don't
check on other factors
Lisa--when the trend stops, who will take
charge?
Anna--Gatewood Bldg, operable windows,
architects say bldg is crown jewel, need
same windows on all sides, lights on top of hill
find the best form and the best design, school
design, lost connection, not
functional
educated public that challenges the designer
participatory design process
Wright--that's what happens when you leave a
work of art out in the rain
doctors and nurses, nurses there are all of time
code compliant worst, codes are driven forward,
less opportunity to push beyond
need codes that are meta-designers
[managing the next 30 years]
NC a fossil fuel state, so no motivation to
improve standards
Greg on the policy front where this gets solved
but more power to the money people, clout on
the policy is with the fossil fuel
silver bullet, still looking, economists, silver
bullet, change the process,
spread the risk, mutual funds, spread the fist,
Oak Hill, 5k sq feet houses, not sustainability,
younger generation is changing
you are the greatest generation, problems are
bigger and you cannot fail
greatest generation created the problems
change is a ... of the generation, public
transportation
emergent condition
Katheryn--phone makes bus possible
corporate world is not changing, driven by
consumers and tax payers, the same
people
Joel--little ladies in Tunisia by solar stoves
we are cozy in our non-sustainable consumerism
Anna--Germans work house efficiency from first
fossil fuel shock in 60s, seat
belts
air bag trickle down, Mercedes
policy is the meta-...
government is too slow,
problems and solutions lie in the scales
gov regs big scales
as an individual need to decide at your scale
success and failure

air bags cost so much car in a wreck coast more
(???)
doner culture is short circuiting Haitian survival
disaster relief, not good for ourselves or others
laundry or area to do laundry in Haiti, laundry
put a lot of laundresses out of

business, just need a faucet
non-seismic construction going on as before the
quake
lost because of need to spend money, farmer's
group