

Advocacy Stream 2016

Acknowledge, Adapt, and Survive:
Environmental Issues and Archives

Panel I: Energy Resources Status Check

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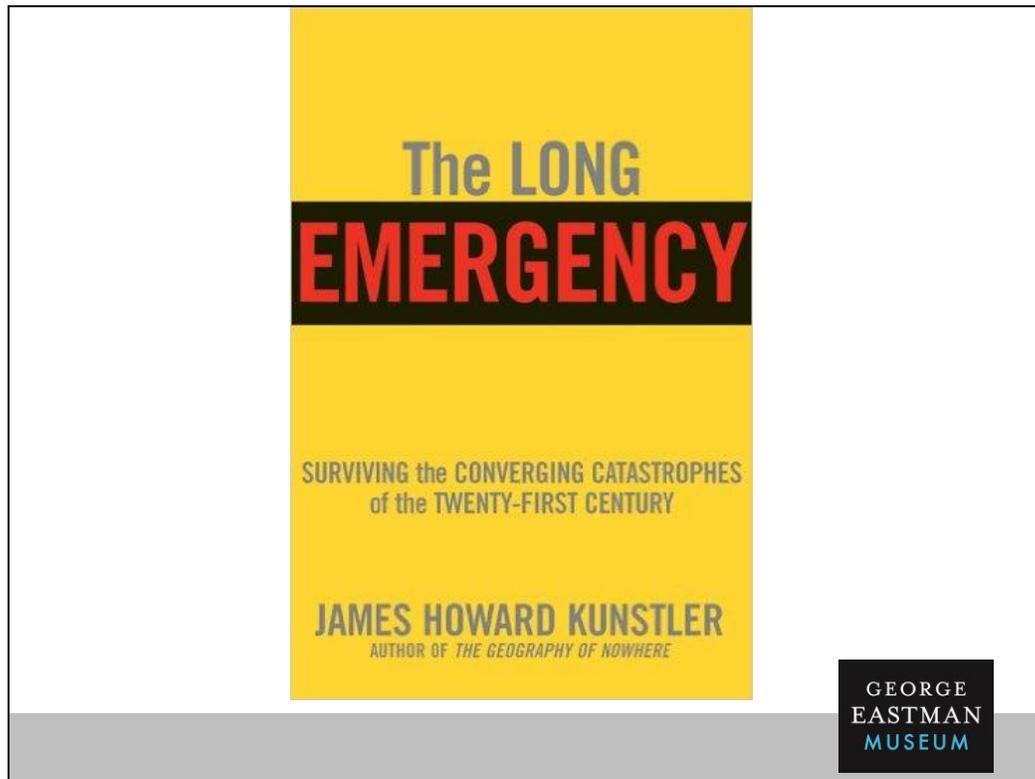
George Eastman Museum

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In early 2006, an old college friend suggested I read a new book written by another mutual college friend. Had it not been written by Jimmy Kunstler, I might have overlooked it. I was busy with work, life, home, family, etc. I knew and admired Jimmy's novels, and his critical observations of the sprawling American urban landscape, but I was altogether unprepared for the scope and substance of *The Long Emergency*. As someone who has been tracking the discouraging signs of societal decay, Mr. Kunstler has eloquently catalogued the high price we have paid from our glutinous dependence on oil and petroleum products to fuel our lifestyle to the detriment of our environment and our society.

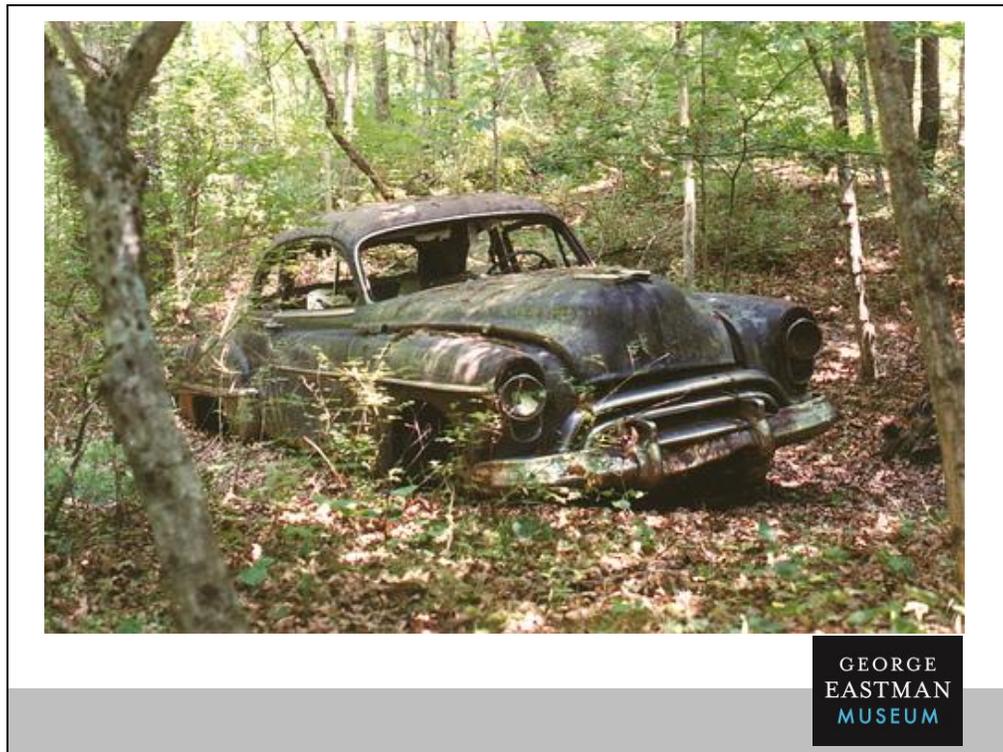
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The toll that our dependence on fossil fuels has taken on our world is monumental.

We recognize air pollution immediately. The scarred and devastated landscapes resulting from oil production. The first oil boom in America – in Titusville, PA in 1859 unleashed an avalanche of technological marvels on the American people – with perhaps none more intriguing, desirable and life changing than the automobile.

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President Herbert Hoover's campaign promise to put a "car in every garage and a chicken in every pot" in 1928 has come true in a way no one expected 88 years ago. Rusting hulks litter our planet (this one is from Australia!) Henry Ford, the inventor of the Model T and the assembly line, was reputedly sickened by the sight of derelict cars, and by 1942 he had developed a car made almost entirely from plastic derived from soybeans. WWII intervened and the design was abandoned. But our love affair with the automobile continued and has produced another suburban nightmare -

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The strip mall. Kunstler has always reserved especially scathing comments for this 20th century phenomenon of graceless efficiency. Get in, get the goods, and get out. Cars, gas stations and Kentucky Fried Chicken. The Hoover promise is realized.

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In *The Long Emergency: Surviving the Converging Catastrophes of the Twenty-First Century*, Kunstler turned his acute powers of observation to an industrial world built on the platform of oil and cheap energy. The result is a book packed with many sobering statistics and to be honest, a very bleak view of what our cumulative world choices on energy, economics, politics and power have achieved. We have indeed paved Paradise and put up a parking lot.

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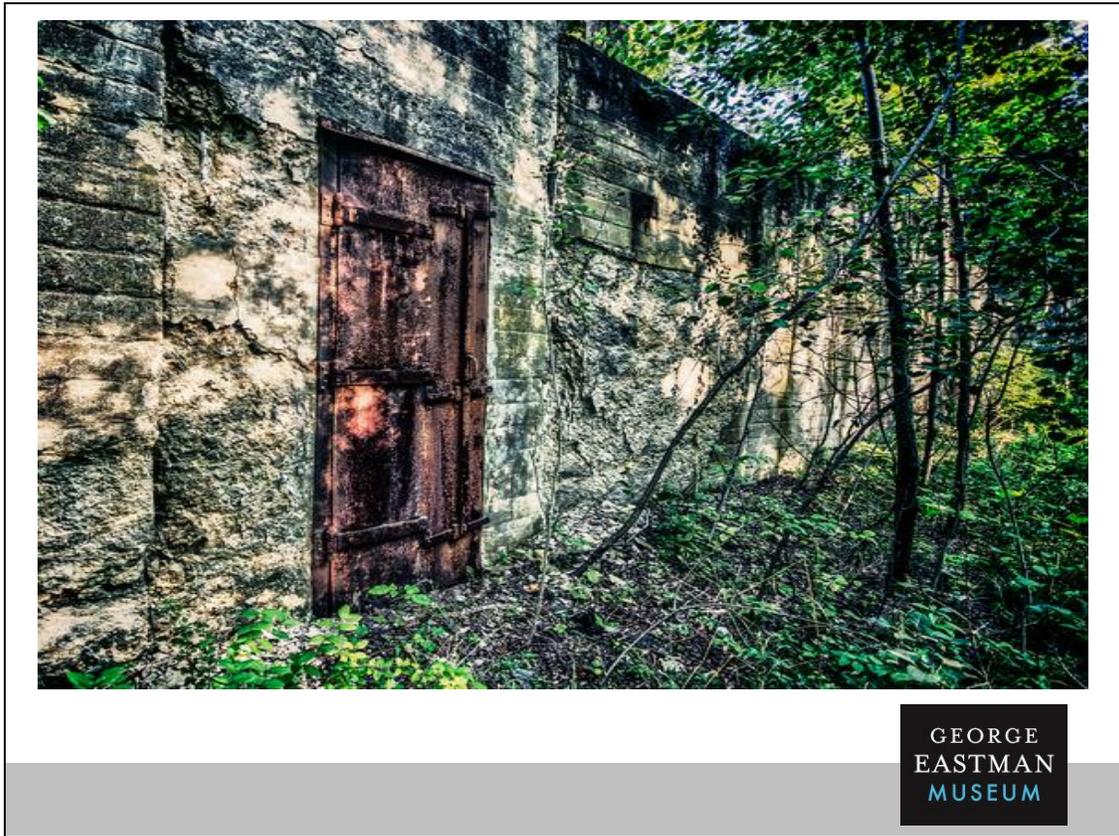


I was and still am, disturbed by much of the book. – the description of the depletion of Saudi Arabia’s main Ghawar oil field – a 300 mile long sliver of sand on the kingdom’s Persian gulf shoreline – and one of six that makes up the Saudi oil production – was being pumped with sea water. At the time the book was published in 2005, Ghawar oil field accounted for 60 per cent of the country’s output, and 5.5 percent of the world’s daily production. Aramco, the Saudi national oil company, was injecting 7 million barrels of sea water into it per day. An online discussion on Oilpro.com last February questioned this tactic and whether or not this field was almost depleted. The oil experts who responded agreed that the issue was not that sea water is being pumped into the Ghawar – it’s been done since the very early life of the field - but of how to separate the water from the oil, a process that makes retrieval more costly and results in higher consumer prices.

But it is not just oil for gasoline that is the issue. The point is that our worldwide production of consumable goods – and that includes everything we as archivists use in the field of moving image conservation and preservation – is built on a production platform sustained by oil and its many derivatives.

I didn’t really think about this fact much until I read *The Long Emergency*. Call it a long delayed ‘come to Jesus moment.’ But it got me thinking about the work we do.

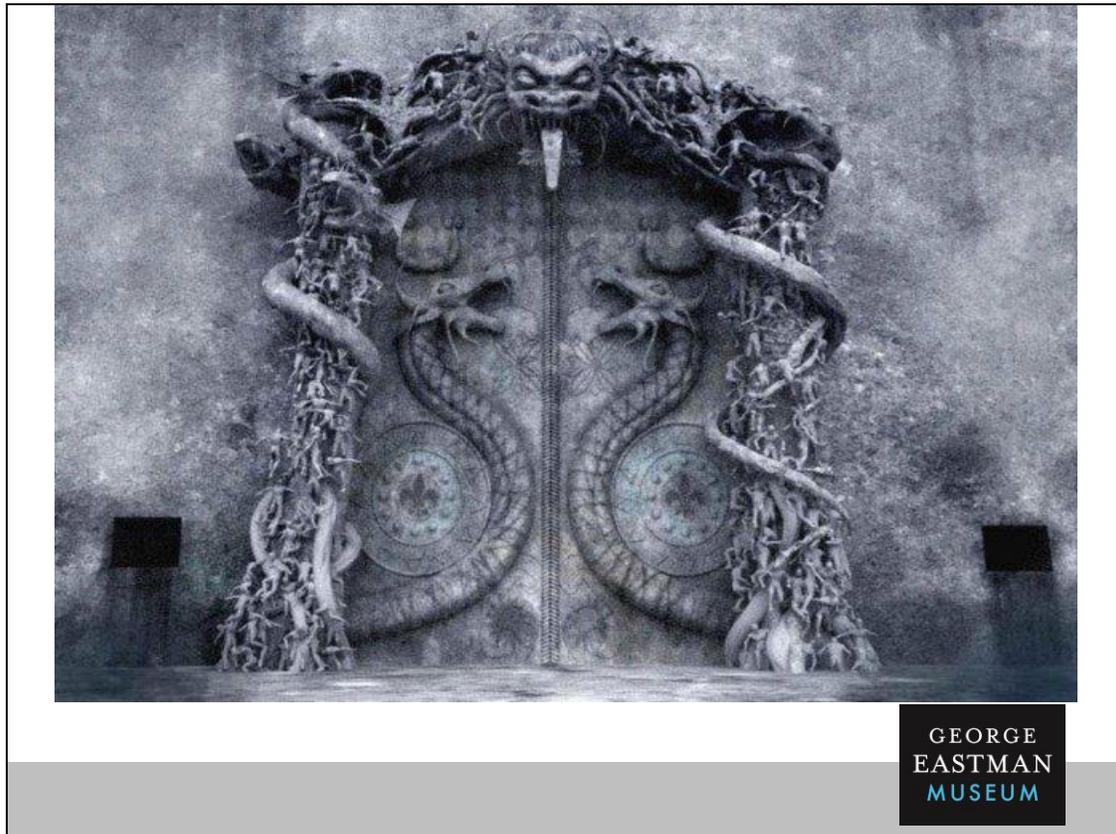
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What does this mean for archivists and the collections we try to sustain?

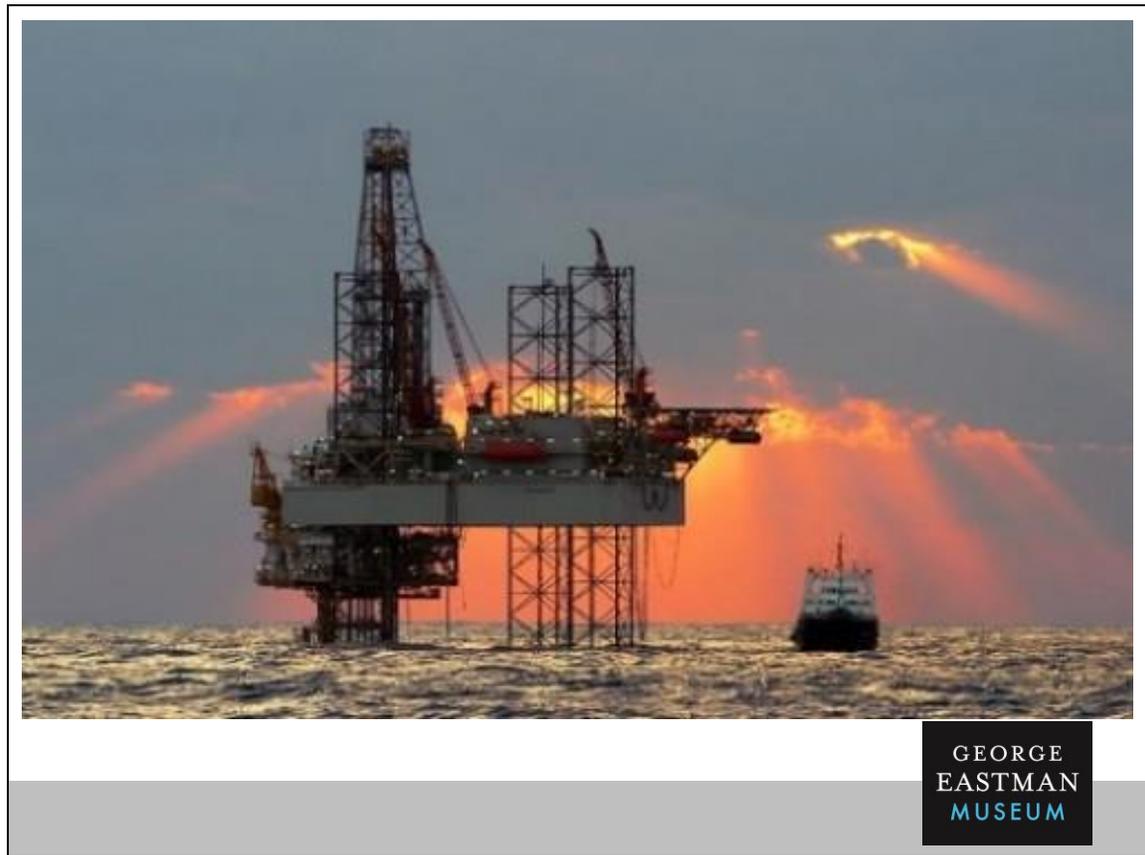
How will archival institutions manage collections, public access, and scholarly research if they are crippled by soaring energy costs? What if our institutions become faced with energy cuts and blackouts, no lights, no heat, no cooling systems, - as many of our colleagues in developing countries already cope with today?

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The Long Emergency provoked the question of the potential damage to collections if archival institutions cannot meet the energy demanded to keep our state of the art vault systems operating. The work done by our generation and by that of our predecessors, to understand film and how to conserve it – and all of the questions surrounding digital preservation could become moot. It is not really too far-fetched to visualize how these treasured collections - housed in clean, cold, ventilated vaults - could become relics sealed in permanent tombs – if the energy bills are too much for an institution to sustain.

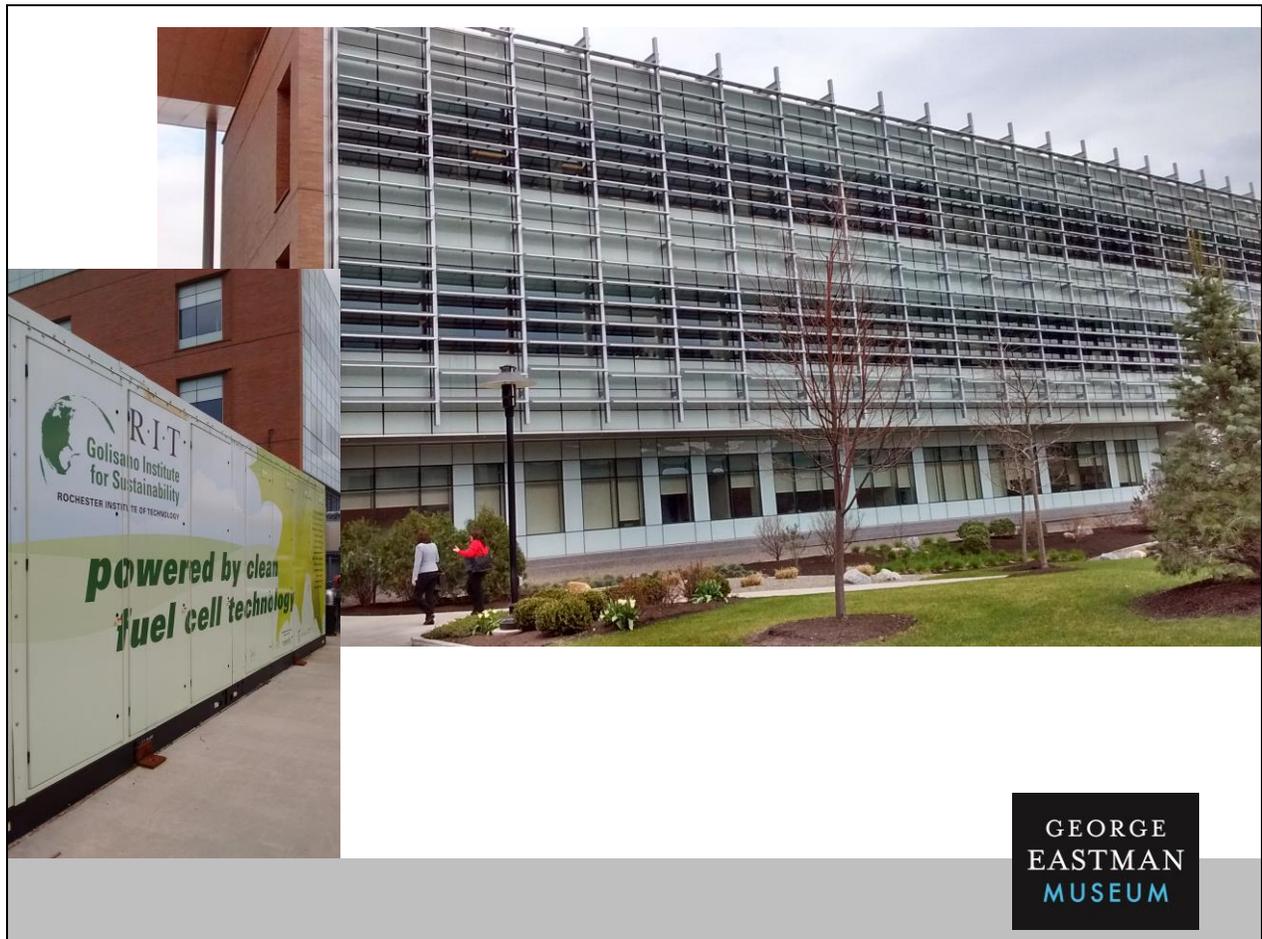
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This Advocacy Stream grew out of reading *The Long Emergency* – and has a 10 year gestation period. I first proposed a panel in 2006 with the cheery title of ***Archiving in the 21st Century: Conserving the Moving Image without Fossil Fuels*** – which may have been too depressing as it failed to make the conference panel list. Re-submitted in 2007, it still failed to attract a positive response.

However I am both pragmatic and tenacious. As co-chair of the Advocacy Committee, I brought this idea forward again last year, and working with my co-chair Gloria Ana Diez, and with significant assistance from Casey E. Davis, co-founder of Project ARCC – Archivists Responding to Climate Change, the scope of the initiative was expanded to embrace the conjoined issues of energy resources and climate change: how they affect moving image archiving, and conversely, how the environment is affected our archival practices.

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My personal mantra in this discussion has been GET OFF THE GRID. But I'm learning more about that concept every day. The best solution is a combination of grid power and self-generated power should be a goal for every cultural institution (and individual) in this country. The Golisano Institute for Sustainability at Rochester Institute of Technology is a grand example of superior energy and environmental design. It is a resource for testing new designs in energy technology and for information on environmentally friendly energy choices. It was designed to be self-powered and it generates enough electricity using fuel cell technology (3 tons of food waste from the entire RIT campus combined with waste from Northern Soy a local soy food producer are fed into the system) to power the 84,000 sq. ft. building and 3 nearby campus buildings as well. It also incorporates a microgrid system from variable power sources (including windmills and solar panels) and stores the energy in a battery bank to provide 50 kilowatt hours of power, a geothermal system for heating and cooling the building, and a solar array on the roof.

IAGS Institute for the Analysis of Global Security
<http://www.iags.org/> - Robert C. McFarlane, President; former National Security Advisor to Pres. Ronald Reagan

Hard Truths, Difficult Choices
RECOMMENDATIONS TO THE G-7 ON BOLSTERING ENERGY SECURITY
Gal Luft
www.iags.org

CLEARPATH
<https://clearpath.org/energy-101/the-problem-with-the-power-grid>

<http://cleanenergyaction.org/>

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The internet is full of websites focusing on various types of energy sources, advocacy for clean power, and security for stand-alone grids. My research turned up some interesting sources and facts – institutions with diverse political affiliations and ideologies are of course weighing in on the energy issue and security for energy networks. IAGS – Institute for the Analysis of Global Security and CLEARPATH are both conservative organizations that promote natural gas and nuclear power before solar and wind power. CLEARPATH’s article on the problem with the power grid is concise and informational, and I think worth reading. Interesting fact: the U.S. Army is intending to get off the grid.

Clean Energy Action (CEA) is a nonprofit organization based in Boulder, Colorado with the goal of educating the public to support a shift in public policy towards a post-fossil fuel economy. CEA was co-founded by a small team of concerned citizens in 2005 who opposed the construction of Xcel Energy’s newest and largest Colorado coal-fired power plant, Comanche 3 in Pueblo, Colorado.

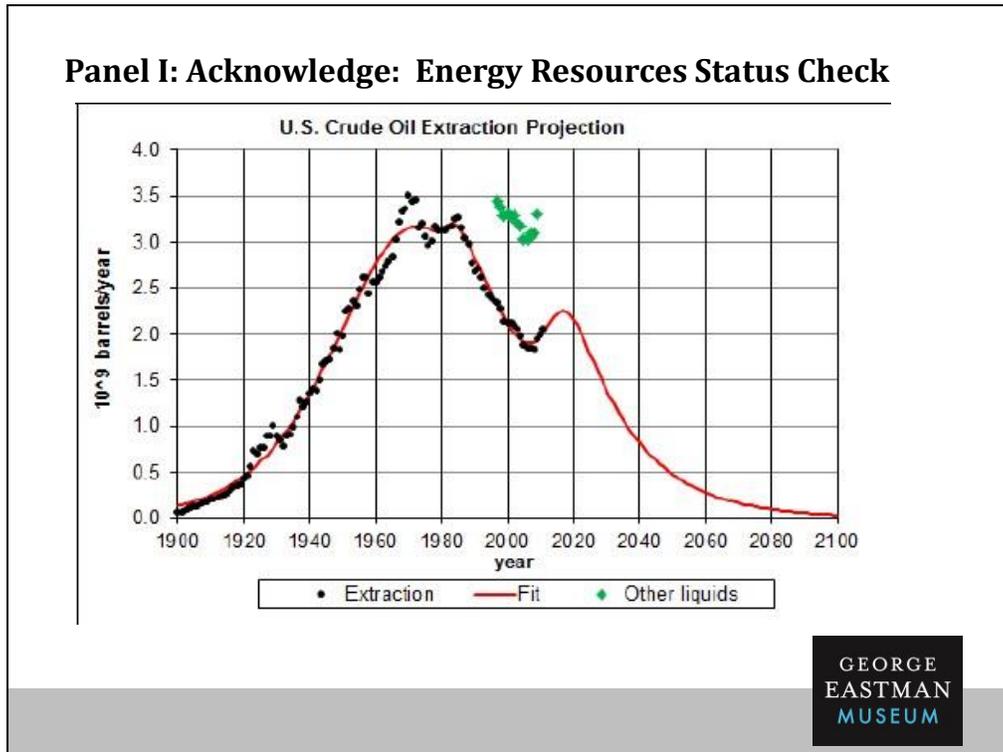
Inside the Cunning, Unprecedented Hack of Ukraine's Power Grid <https://www.wired.com/2016/03/inside-cunning-unprecedented-hack-ukraines-power-grid/> (Wired)

No, Israel's power grid wasn't hacked, but ransomware hit Israel's Electric Authority (Computer World from IDG)

Ransomware via a phishing attack hit Israel Electric Authority, not the power grid, but it still freaks out the world as the incident is dubbed a 'severe cyber attack;' that morphed in the media into an attack that took out the Israeli power grid.

<http://www.computerworld.com/article/3026609/security/no-israels-power-grid-wasnt-hacked-but-ransomware-hit-israels-electric-authority.html>

The issue of Security raises the hoary head of Hacking. Incidents from 2016 indicate that breaching the security of any network is doable – if you have the skills and are determined to do so.



This Stream of five panels seeks to address questions related to energy and climate change through acknowledging the need for attention to these issues by archivists, adapting our practices and systems through innovation, and surviving in order to protect the collections we conserve. The first panel acknowledges energy resources as a status check: what have we got; how long will it last – and what replaces fossil fuels?

We are fortunate to have Prof. Eric Hittinger, Rochester Institute of Technology, Assistant Prof. of Public Policy & Affiliated Faculty at Golisano Institute for Sustainability with us today to address these questions. They will not be sugar-coated – the current status of our resources - whether positive or negative - is what we are aiming to discover. It is fundamental to our understanding of the energy situation to sort out fact from fiction – there are many vested interests driving this discussion worldwide. We need to step back and make a cold assessment and proceed from there. Prof. Hittinger is eminently qualified to do this and I am grateful that he has taken the time to share his findings with us.



Global Climate Change is the subject of our second panel. Acknowledging that climate change is happening, that our consumer culture and reliance on fossil fuels negatively impacts the earth's ecosystems and increases climate change is evidenced in increasingly severe weather patterns, and increased global warming. The Northwest Passage has thawed and commercial tour cruises are gliding through – so don't tell me we ain't warming up. What we must do to help reverse this trend will be discussed by Raymond G. Najjar, Professor of Oceanography, Department of Meteorology and Atmospheric Science, The Pennsylvania State University. Again, I believe we are very fortunate to have Prof. Najjar bring his research and experience to this discussion. My colleague, Casey Davis, of Project ARCC, was unable to attend the conference, so I will be giving her presentation which looks at the climate change issue from the point of view of a moving image archivist.

**Panel III: Acknowledge/Adapt:
Environmental Impact of Archiving**

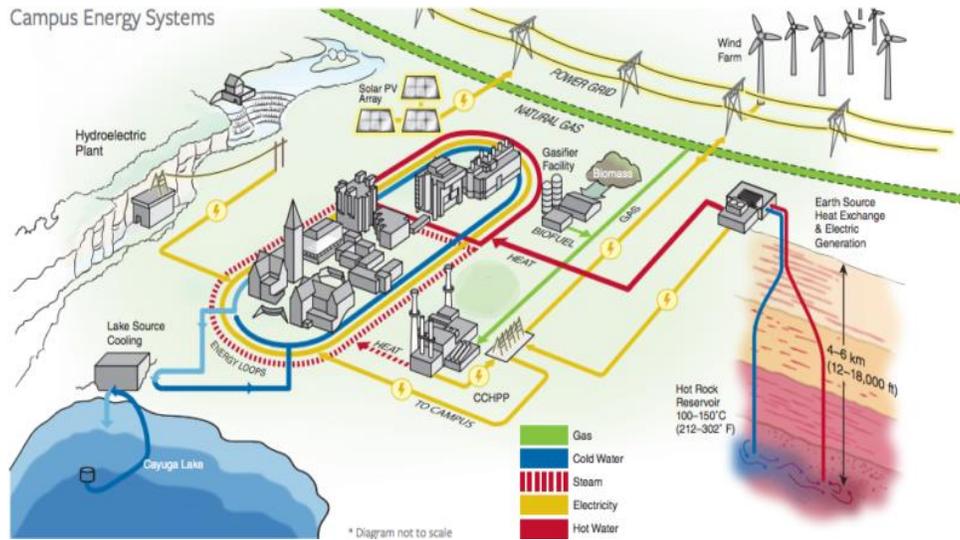


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Our third panel makes the point that we – archivists - must acknowledge and accept responsibility for our role in adding to the devastating effects of pollution on the environment. Linda Tadic has updated her powerful presentation on the Environmental Impact of Archiving and discusses what we can and must do to reverse this trend.

Panel IV: Adapt/Survive: Outside the Box Energy & Conservation Policies, Practices and Methods

Cornell University Geothermal Plan: "Earth Source Heat"



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Panel IV brings together two of our most prominent archivists whose work to improve conservation systems, technologies, and practices in moving image archives is well known. Reto Kromer, of AV Preservation by reto.ch and Mick Newnham, Manager Preservation and Research, National Film & Sound Archive, Australia, will discuss innovations in conservation design and sustainable long term storage systems for moving image artifacts. Mick, will be Skyping in for today's panel. They will be joined by Jeremy Linden, Senior Preservation Environment Specialist, Image Permanence Institute who will share his work which focuses on environmental management of archives using energy-saving practices, and new models for achieving long term sustainability in the face of climate change. I think we are very lucky to have Jeremy with us today.

Panel V: Adapt/Survive: Advocating for the Survival of Moving Image Collections



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Our fifth and final panel is *Adapt/Survive: Advocating for the Survival of Moving Image Collections*. Our speakers on this panel are Dr. Ray Edmondson, Curator Emeritus of the National Film and Sound Archive, Australia, and Eira Tansey, Digital Archivist/Records Manager, Archives and Rare Books Library, University of Cincinnati. Dr. Edmondson has been tireless in his efforts to advocate for the recognition of moving images as historically and culturally relevant artifacts, and for their protection and that of their institutions on the international stage through UNESCO's Memory of the World. He will discuss raising public awareness of the impact of climate change on archival institutions and the loss of cultural heritage. Ms. Tansey will discuss the need to embed archival adaptation to climate change into our broader professional advocacy efforts, such as considering how values of sustainability and resiliency might inform archival practice.



Question → Evaluate → Plan → Act



This stream is intended to be a beginning. Hopefully it will ignite further discussions, ideas, and positive solutions to the issues raised. I suspect more questions will come out of it than answers, but asking the question is an important first step. As archivists and curators we must get ahead of this particular curve. We must learn to bring these issues to the attention of our administrations and seek solutions that can be proposed to them – often in the midst of deep and debilitating budget cuts and political upheaval. We need to assist and support each other as we evaluate and confront the obstacles that are particular to our own situations. My belief is that we, as the guardians of this particular galaxy – must begin to organize information and statistics on energy and climate change as they directly affect the care of archival collections of moving images for the attention and action of the boards and governments of our respective institutions. Question, Evaluate, Plan. Act.



As advocates for moving image collections, we need to be ever more informed on the issues of energy resources and climate change. We must bring a new level of commitment and responsibility to the already formidable task of conserving the moving image that lies before us.