

Faculty of Design

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### Medicine in the anthropocene: Modern healthcare and the transition to an ecologically viable society

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# RSSE SYMPOSIUM

systemic design for social complexity

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## Medicine in the Anthropocene: Modern Healthcare and the Transition to an Ecologically Viable Society

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- 6. Case Studies: Transition Design, Salutogenic Design

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### **The Anthropocene**



Charts: Steffen, W., Broadgate, W., Deutsch, L., Gaffney, O., Ludwig, C. 2015. "The Trajectory of the Anthropocene: The Great Acceleration." *The Anthropocene Review* January.





### The Problem Context: Medicine in the Anthropocene

Research article

#### Respiratory health and ecosyndemics in a time of global warming

#### Merrill Singer

#RSD5

### Will Medicine Survive the Anthropocene?

Up to ten percent of major drugs contain plant but a warming world could put those—and oth

#### 4. Mosquitos bringing dengue fever

#### Global antibiotics 'revolution' needed



TOS DE BOTANICA Y ESOTE

INCIENSOS. CIRIOS. VELAS Y ACEITES PERFUMES.LOCIONES. JABONES. SPRAYS

### ⊙ 19 May 2016 | Health

Loneliness will be the next great moneyspinner Emily White

< Share

solation among young people is increasing, spawning a new industry in companionship. Soon paying for walks, dinners and dates will feel norma

#### How Climate Change Is Cranking The Heat On Public Health Crises



Psychologist: "Modern Life is Not Good for Mental Health"

Daniel Lattier I March 18, 2016



### The Problem Context: Medicine in the Anthropocene

### Ecology

**Declining Resource and Energy Flows** 

Climate Change

Changing Ecologies of Disease

**Environmental Destruction** 

Extinction of Medicinal Plant Species

**Political Economy** 

The End of Economic Growth

Society

Vulnerability to Rapid Losses of Social Complexity

The Rise of Diseases of Modernity

Aging Demographics

Ecosyndemics

Individualization

Mass Migration

**Geopolitical Conflict** 

**Risk Society** 

Crisis of the Welfare State





### **Transformation in Socio-Ecological Systems**

Ecological, Social, Economic Pressures of the Anthropocene

Transformation to an Alternative Systemic Steady-State

An undesirable 2<sup>nd</sup> basin of attraction: the path of least resistance

Niche alternatives deepen a desirable 3<sup>rd</sup> basin of attraction: Min Specs

Vulnerabilities building in the dominant regime





## **Building Alternatives:** Minimum Specifications for Redesigning Health Systems (Global Scale)

- 1. Decrease the energetic and material throughput of modern medicine
- 2. Extract the best of modern medicine from reliance on industrial production, consumption, and distribution
- 3. Re-embed aspects of healthcare in networks of family and community reciprocity
- 4. Move away from individualism in medicine to incorporate broader recognition of the interdependence of social and ecological wholes at multiple scales
- 5. Leverage disruptive technologies and ontologies



### Strategies: Economic Degrowth

- Redefine the purpose of the economy from generating growth to supporting human wellbeing.
- Care and health anchor a new labourintensive, prosumption-oriented economy
- From curing to prevention and care
- Care provides an enduring basis for selfesteem and status





### Strategies: Transition Design

"[T]he future with less oil could be preferable to the present, but only if sufficient creativity and imagination are applied early enough in the design of this transition"

- Hopkins, 2008

"Transition Design focuses on the need for 'cosmopolitan localism', a place-based lifestyle in which solutions to global problems are designed to be appropriate for local social and environmental conditions."

- Irwin et al., 2015







### Strategies: Salutogenic Design

- Embeds preventative health into the structure of social institutions and the built environment
- Ecological architecture restores the environment
- Urban design promotes healthy behaviour
- Principles of design used to reduce the burden of disease
- Enhanced by social innovation, which introduces novel processes, behaviours, and beliefs









Ecological limits to economic growth could twist



## **Medicine in the Anthropocene:** Modern Healthcare and the Transition to an Ecologically Viable Society

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