

# Sustainability: A Culture of Less is More

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# Easter Island as Lesson

- ▶ Settled by Polynesian islanders in 1200 AD
- ▶ 1000 miles from closest island
- ▶ Estimated as having 16 million trees
- ▶ Introduced rats and slash and burn methods
- ▶ No existing trees on the island and only statues of iconic Easter Island heads
- ▶ Ecocide: the consequences of overconsumption?
- ▶ What is the relevance of architecture in the context of ecological suffering?



# Sustainability

- Defined by World Commission on Environment and Development (1987) as development that meets the needs of today without compromising the needs of tomorrow.

## Questions

- Sustaining what?
- Sustainability and...
  - Culture, Religion, Politics, Ecology, and Architecture?
  - Social Justice?
  - Ethics?
- Architecture: Present and Future?

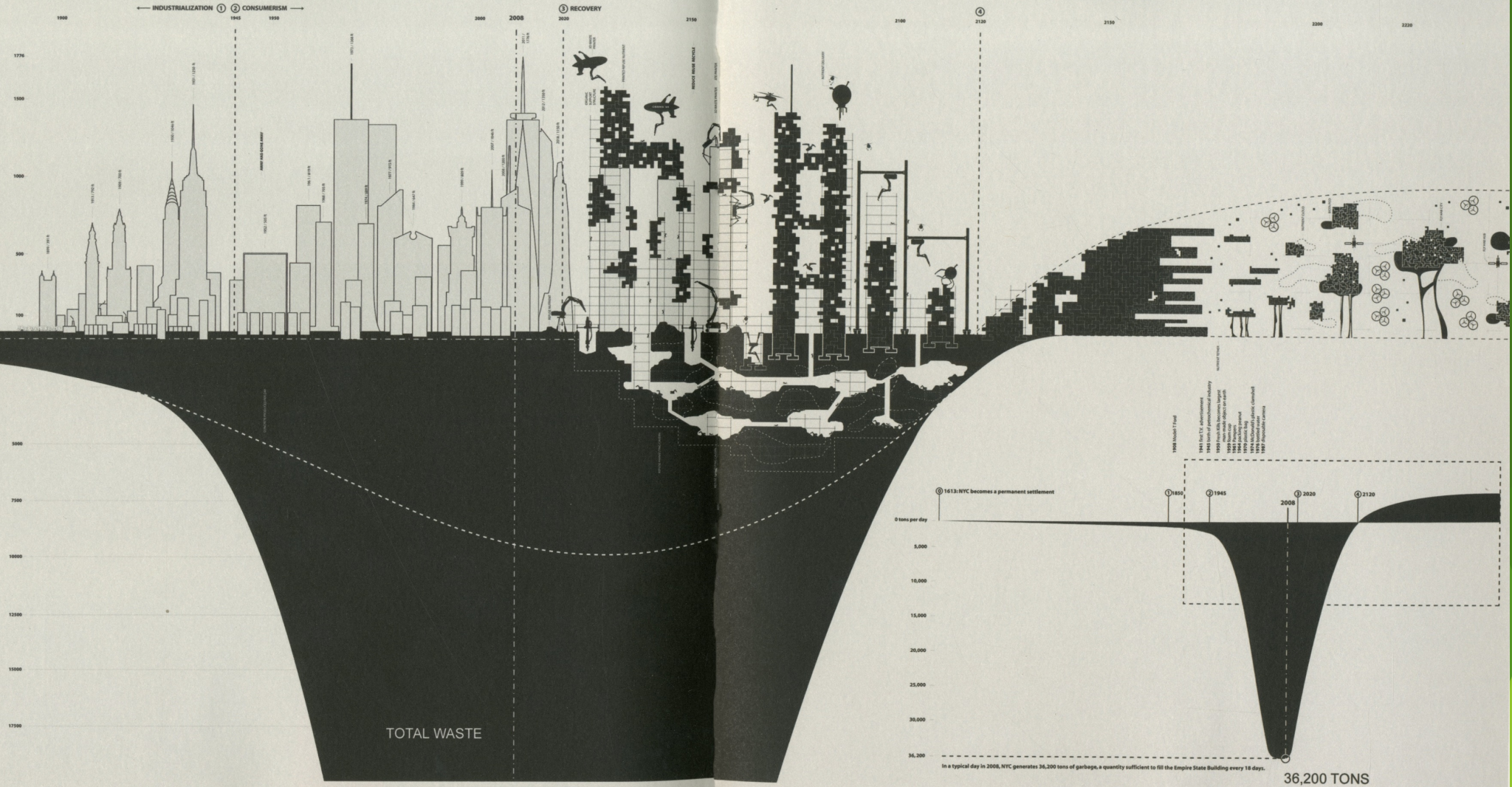
“It is a culture of waste and atmospheric recklessness, a way of life that is based on constant fireworks. The next architecture will have to be an architecture of atmospheric respect and ecological restraint.”

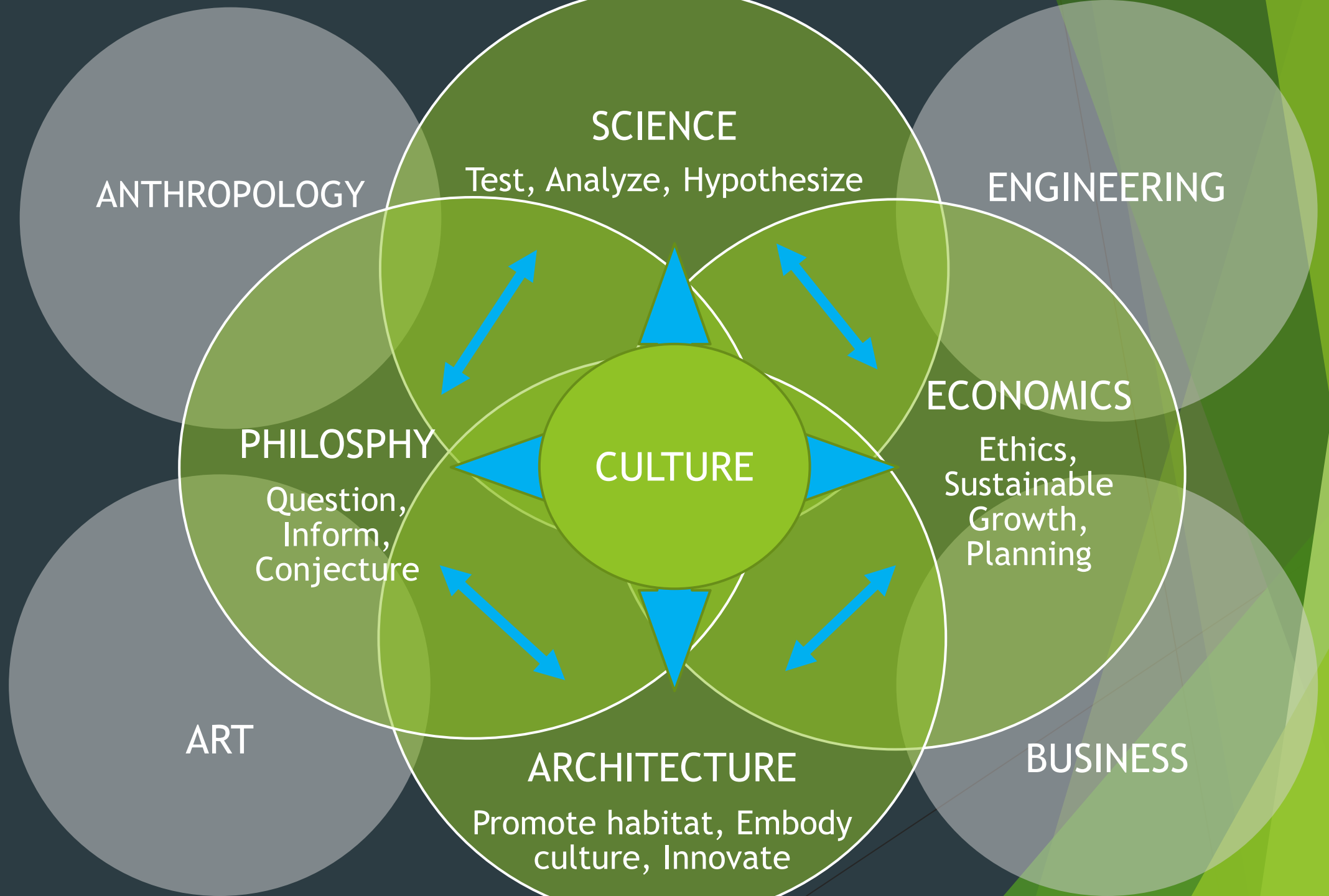
- Peter Sloterdijk

- ▶ Need for Public and Interindustry Discourse
- ▶ Architectural Responsibility to Engage and Innovate



POSITIVE WASTE SOCIETY





# So what does Sustainability entail?

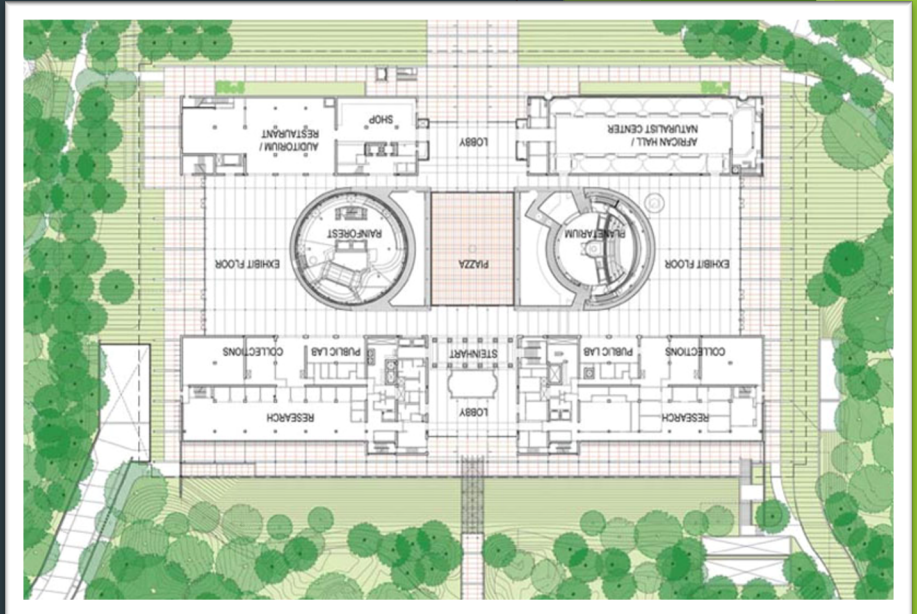
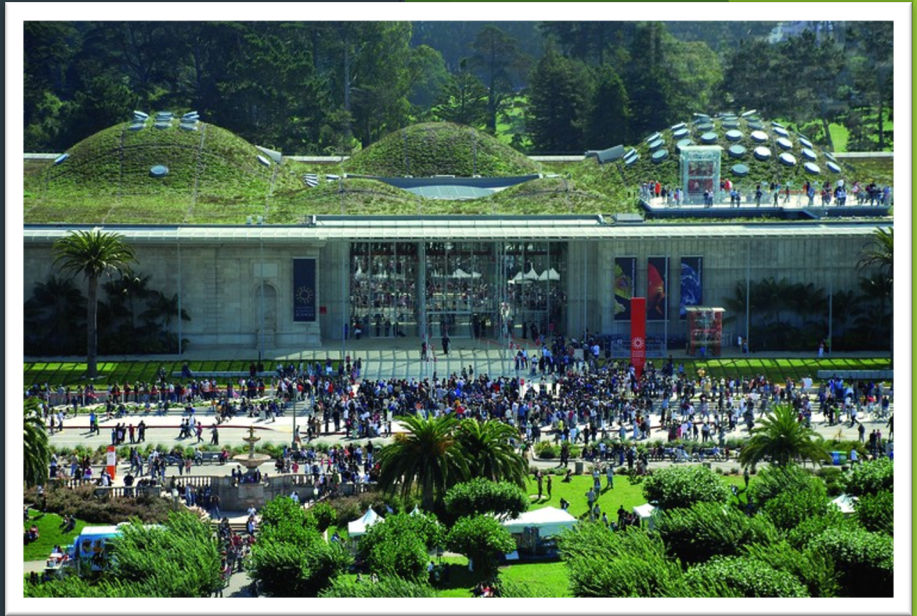
- ▶ Collective effort at a local scale to lead to global impact
- ▶ Collaboration across industries and areas of study
- ▶ Increased scientific knowledge, innovation, revision, and accountability
- ▶ Underlying ethical systems
- ▶ Cultural shift from heavy consumerism to less is more approach



# California Academy of Sciences

## A Model for Sustainability

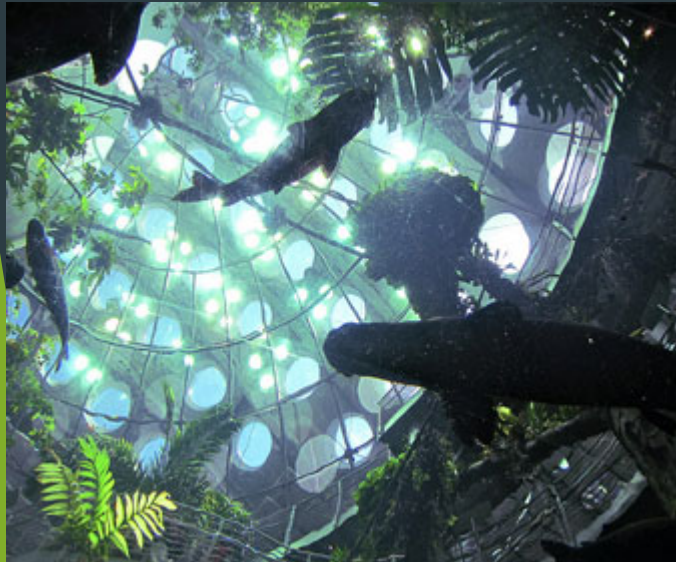
- ▶ Specifications:
  - ▶ Architecture Firm: Renzo Piano Building Workshop
  - ▶ Location: Golden Gate Park, San Francisco, CA
  - ▶ Client: California Academy of Sciences
  - ▶ Completion: 2009
- ▶ Program:
  - ▶ Create a safe, modern building for the purposes of education, exhibition, conservation, and research under a single living roof.



# How is it Sustainable?

- ▶ 90% of preexisting building structure recycled; 95% of steel previously recycled; 50% lumber from sustainable logging; 68% of insulation is denim cotton
- ▶ Living Green Roof: Combats Island Effect; collects rainwater for plants and toilets
- ▶ Planted roof used local, drought tolerant plants
- ▶ Provided natural light to 90% of office spaces
- ▶ Radiant Heat System for colder months
- ▶ Engaged public through exhibits and direct education through the architecture about sustainability







# Conclusion

- ▶ Sustainability will be continually redefined
- ▶ Philosophy, Economics, Science, and Architecture must be more integrative
- ▶ Architecture must adapt
  - ▶ Relevance, reengage community, and create thriving places
  - ▶ Build on existing knowledge base
- ▶ Sustainable Architecture can bridge industries together, engage the public, create places of dialogue, and innovate new solutions