







## We live in the age of emergent systems

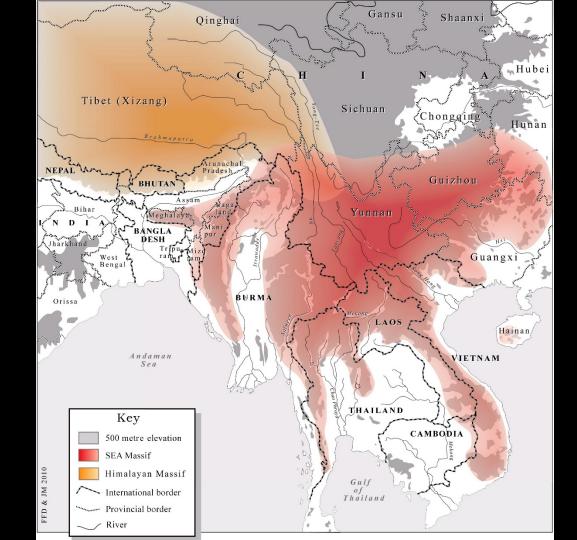
If we learn to coexist with them, we get to keep civilization



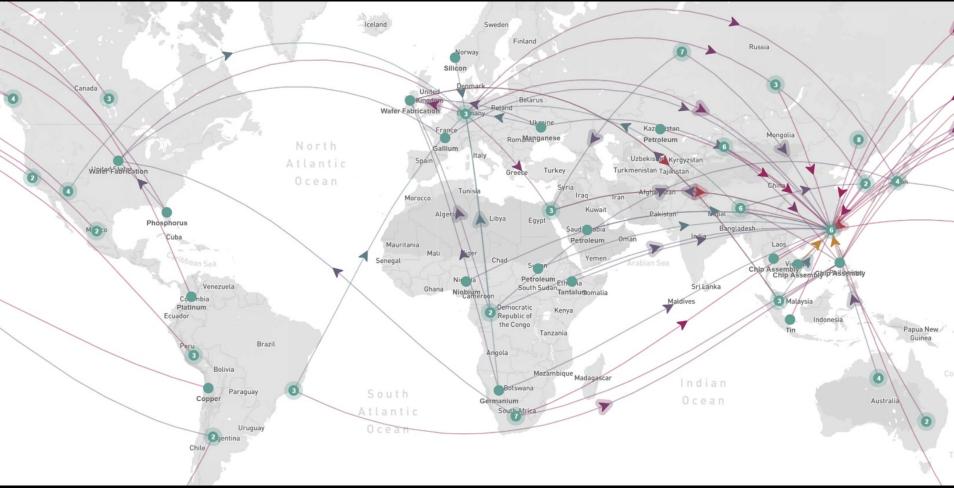














**Complex Systems** display emergent behavior and are constructed by structured, hierarchical composition of simpler systems.

Sociotechnical Systems involve both human behavior and interactions and technical systems. All security problems are sociotechnical systems.







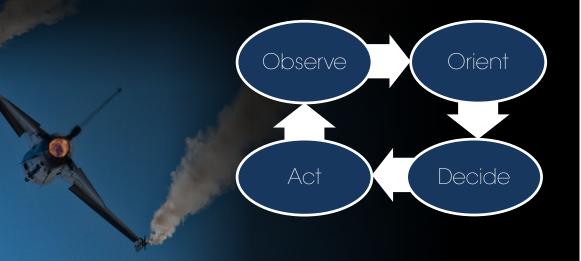
Adversarial Systems ore complex systems where human actors have conflicting goals, often including active harm.

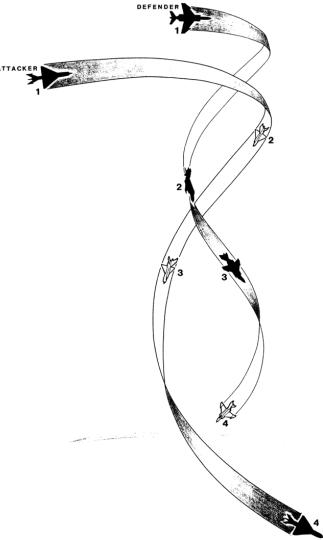
## LET THE HUNGER GAMES

REAL

 $A \parallel$ competitive situations have similar structures war, business, security, &c.

#### Planning in the Presence of an Adversary







#### "Trust does not scale because trust is not reducible to math."

- Taylor Swift



#### Infrastructure, Structure, and Superstructure





Complex [Adversarial] Sociotechnical Infrastructural Systems

We live in the long tail of unintended consequences and externalities





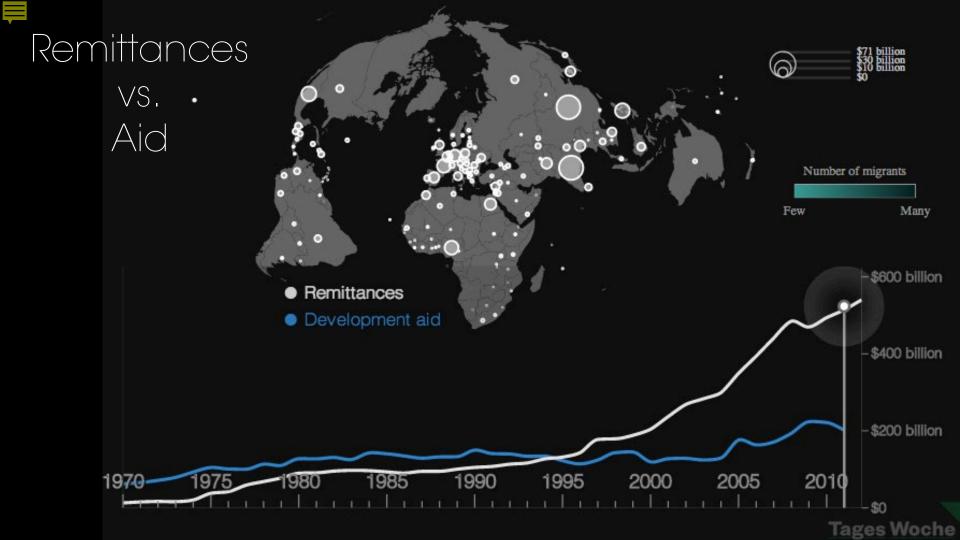


#### Kranzberg's First Law

# Technology is neither good nor bad; nor is it neutral.



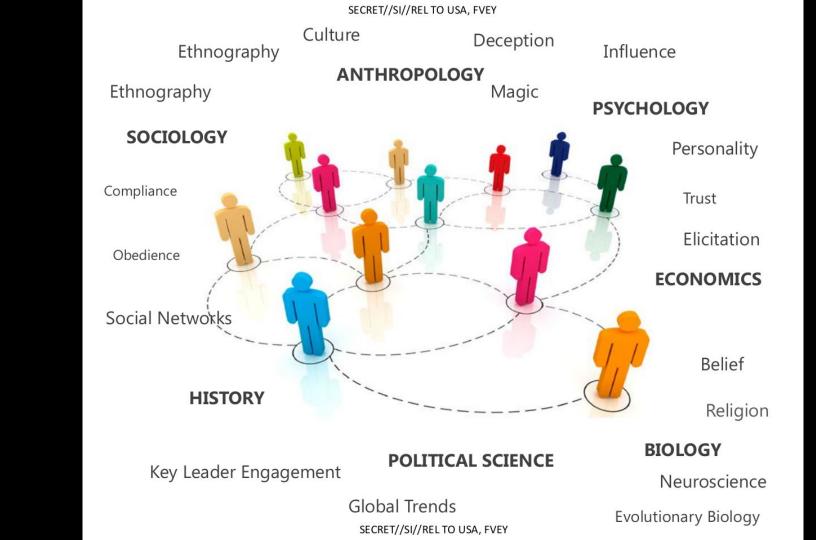


















#### But how do we understand them?



## Disposition

"The architectural theorist Keller Easterling uses the term disposition in other contexts, to refer to the propensity or temperament of forms which produce actions. Disposition is found not in activity itself, but in the relationships or relative positions of the objects that produce action." — Google



Systemic aesthetics is a human perception from the point of view of the system



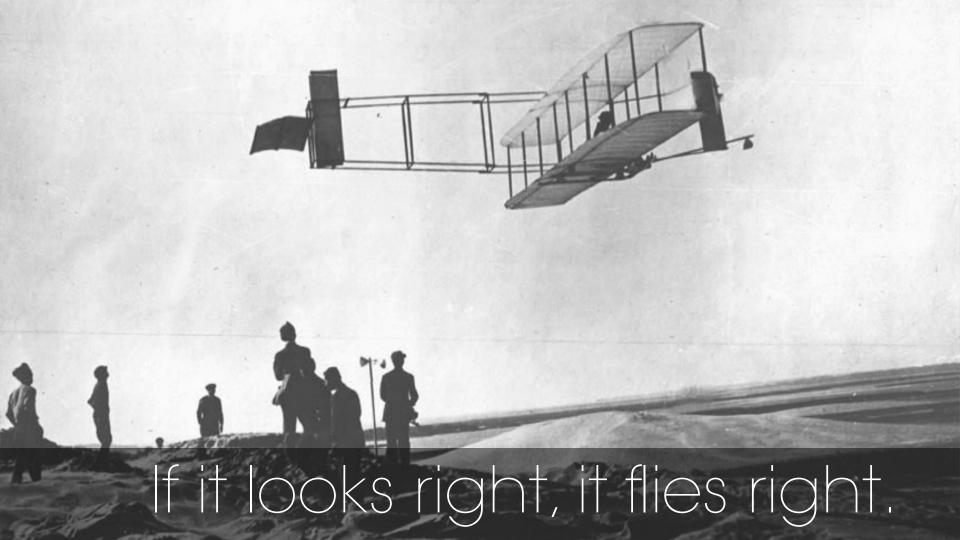
#### Aesthetics is not the image of the system

#### Aesthetics is emergent from deep practice

Aesthetics is a fitness function

Aesthetics is can act as a superset of evaluatory modes

Ethics can be operated as a subset of aesthetics





## If it looks right, it flies right.



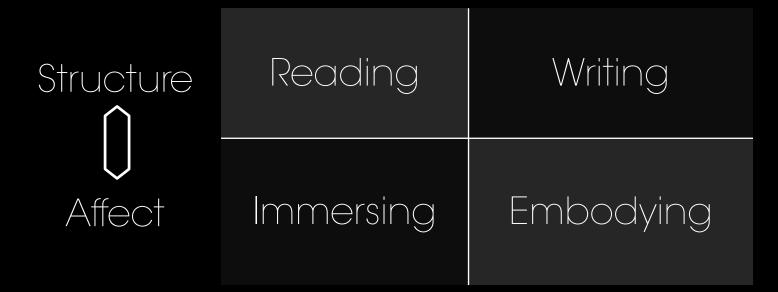


### Systemic aesthetics are still a learned, styled, cultural object

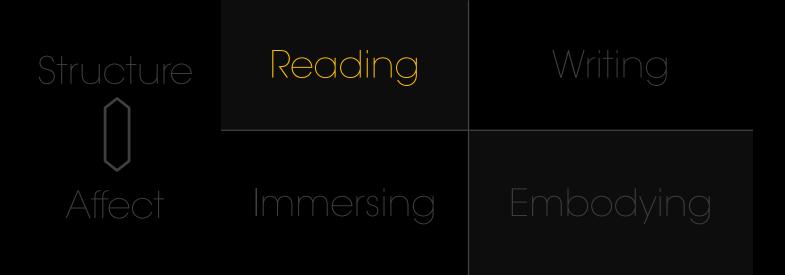
Play and the tentative mode of knowledge



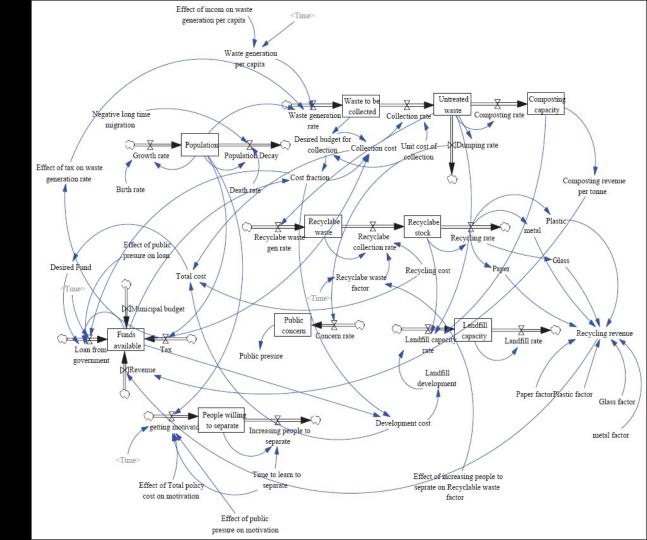
#### Sensing Changing



### Sensing Changing



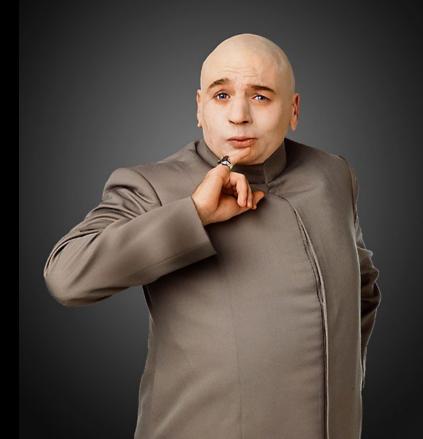
# Systems Modeling



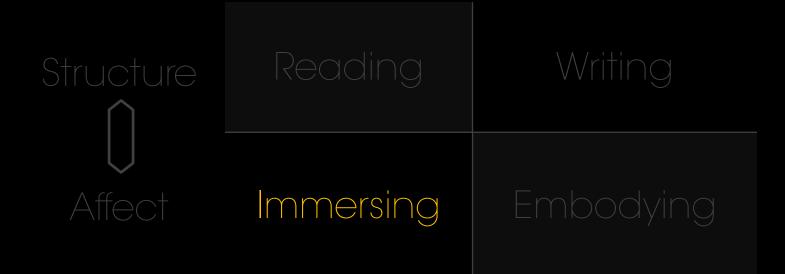
### Sensing $\bigcirc$ Changing



Structural politics, regulatory domains, soft infrastructure, nudges, cultural manipulation, propaganda, bribery, grant programs, censorship, &C.



### Sensing Changing



# Refreshing the long memory of radical history



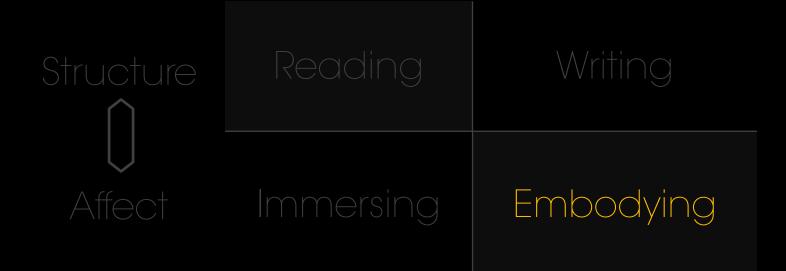
# Developing transnational solidarity



# Understanding oppressions



### Sensing Changing



# Rewriting the rules of infrastructural maintenance





DASHBOARD

HOME ABOUT LOGIN



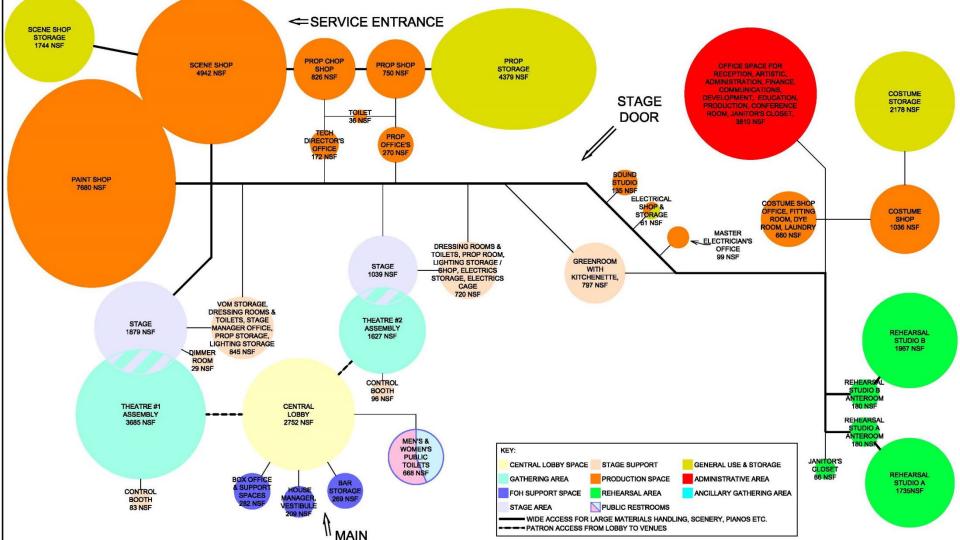


Taarifa and Briar

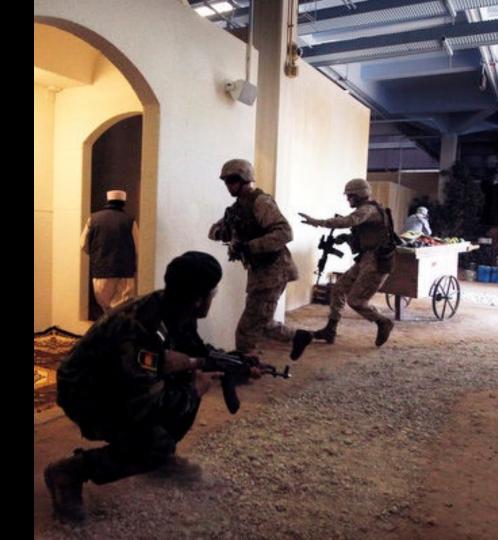


## Architecture and Emotion





# Being a good stranger



### The toolkit



# Diagnosing



## Diagnosing power

## Diagnosing affect

## Diagnosing viability

# Building



## Building belief



## Building rituals



## Building pastness



Live as though you walk in the first days of a healing world

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http

## A Reading List

- 1. Thinking in Systems Donella H. Meadows & Diana Wright
- 2. On the Grid Scott Huler
- 3. The Real World of Technology Ursula M. Franklin
- 4. Extrastatecraft Keller Easterling
- 5. Critical Path *R. Buckminster Fuller*
- 6. Super-Cannes J. G. Ballard
- 7. Hot Earth Dreams Frank Landis
- 8. The Sheep Look Up John Brunner
- 9. Seeing Like a State James C. Scott
- 10. From A to X John Berger

11. Moral Mazes Robert Jackall

- 12. Gravity's Rainbow Thomas Pynchon
- 13. Designing Freedom Stafford Beer
- 14. The History Manifesto Jo Guldi & David Armitage
- 15. How Forests Think Eduardo Kohn
- 16. Simulacra and Simulation Jean Baudrillard
- 17. Dhalgren Samuel R. Delany
  18. The Politics of Large Numbers Alain Desrosières
  19. Debt
- David Graeber 20. Hold Everything Dear John Berger

21. The Player of Games Iain M. Banks

- 22. The Coming Insurrection The Invisible Committee
- 23. A Paradise Built in Hell Rebecca Solnit
- 24. Governing the Commons *Elinor Ostrom*
- 25. Protocol Alexander R. Galloway
- 26. New Model Army Adam Roberts
- 27. Secret Manoeuvres in the Dark Eveline Lubbers
- 28. The Art of Not Being Governed James C. Scott
- 29. The Field Guide to Understanding Human Error *Sidney Dekker*
- 30. Always Coming Home Ursula K. Le Guin