

# Biophotonics in the Rendering of a General Systems Language

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# Overview

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- *Foundry Research Methods*
- *Haptic Interface*
- *Genetics & Biophotonics*
- *Standing Waves, Signals & Semantics*
- *Practices*
- *Expression & Open Source*



# Foundry Research Methods

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- *Atomic simulation on parallel processors*
- *Algorithms for model-building*
- *Rapid prototyping*
- *Foundry investment, molds & casting*
- *Technology scaffolding toward new media*
- *David LeBard, ASU & Shawn Lawson, RPI*

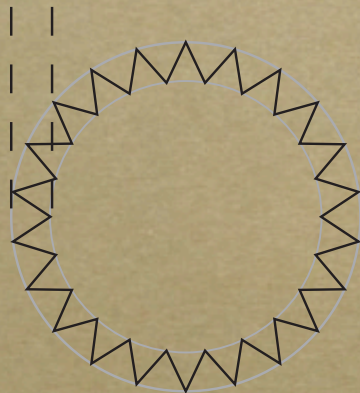


# Haptic Interface

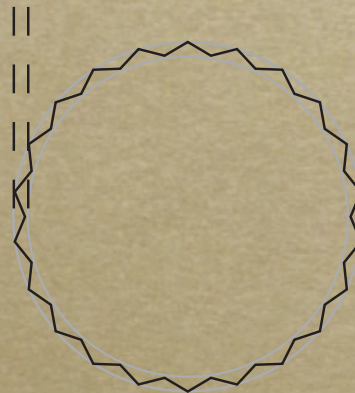
- *Sensory modes and scales of awareness*
  - *Macroscope; Qi & Complexity, 2004*

*Relationship of Protein Movement to Surface Roughness*

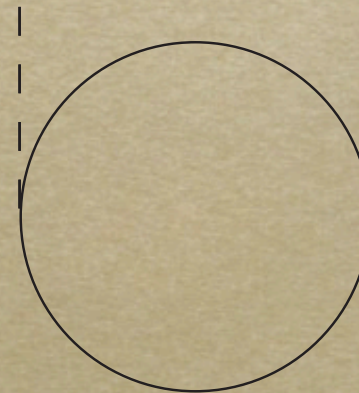
$RMSD = 1$



$1 > RMSD > 0$



$RMSD = 0$

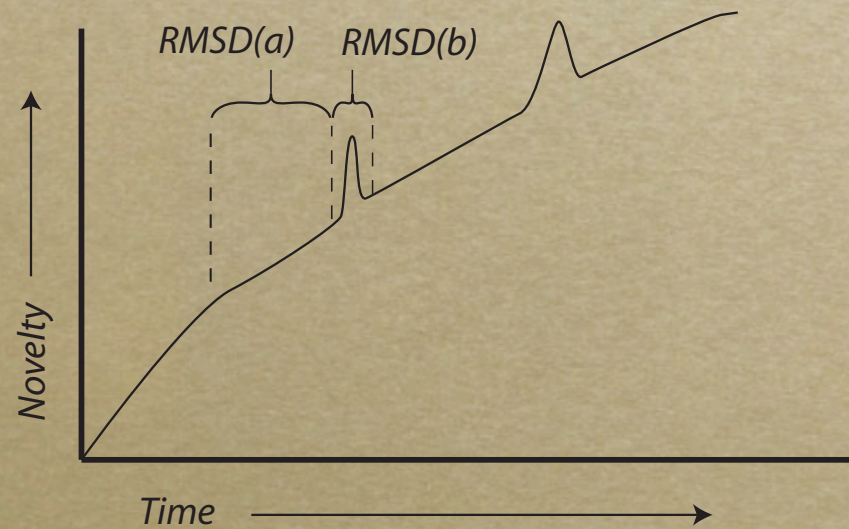




## *Roughness Projected on Other Spatial Renderings*



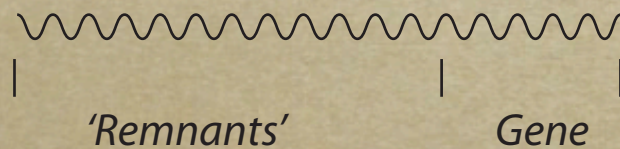
## *State Plot Showing Phase Transitions*





# Genetics

- *Gene vs. 'Junk' / remnants*



- *Façade vs. Architecture*
  - *Mitigating rate of change*



# Biophotonics

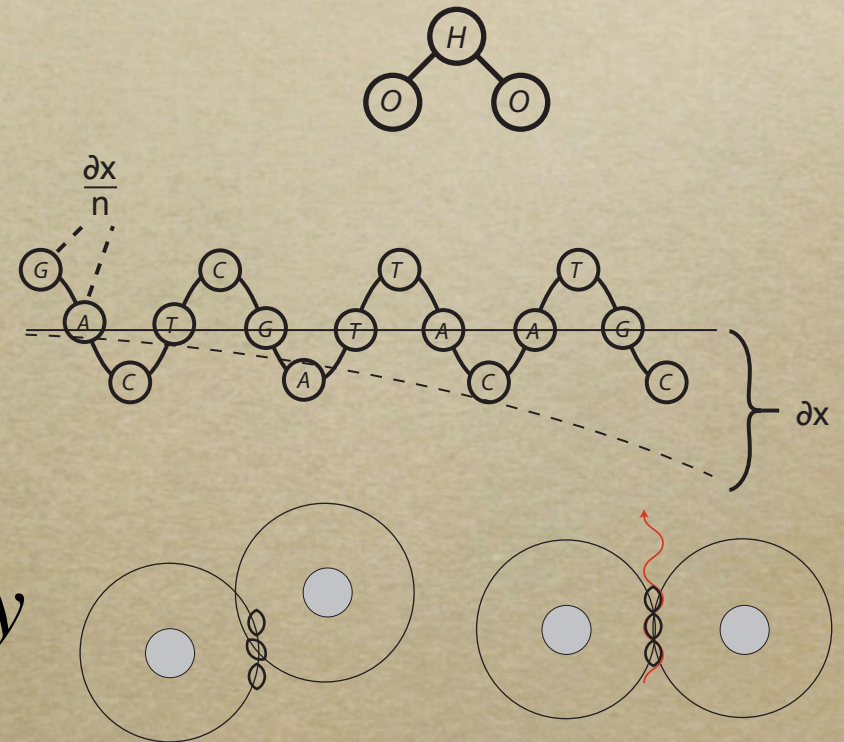
- *Quantum Elastics*

- *Atomic Bonding*

- *Cross-scale linkage*

- *Shell-interlock geometry*

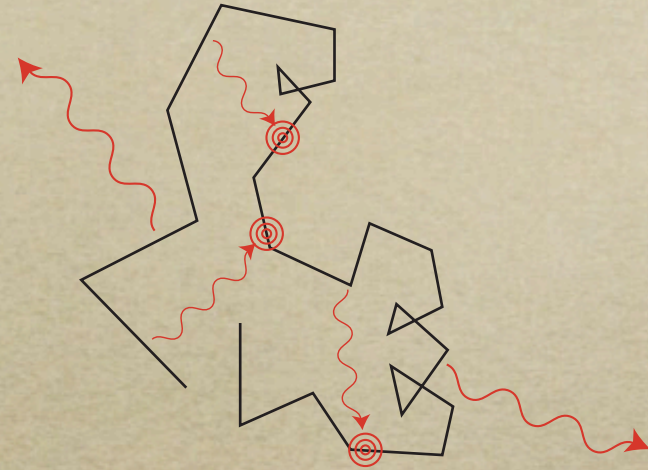
- *Energy entrainment & emissions*



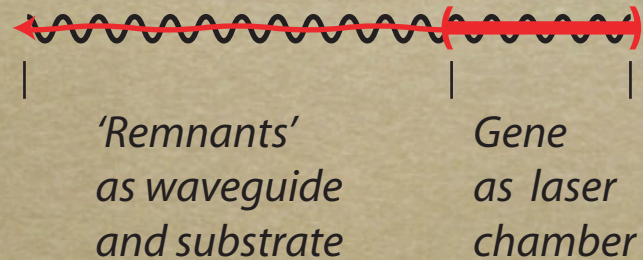


# Signaling

- *'Ecological' emissions*



- *Gene lasing*





# Standing Waves

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- *Pressure upon the gene*
- *Signaling and pressure upon the architecture substrate*
- *Genetic and Ancestral Memory*



# Semantics

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- *Linear / longitudinal*
  - *Language*
- *Non-linear / spatial / latitudinal*
  - *Ecology*
- *Substrate <-> Standing wave relationship*



# Praxis

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- *R. Reenan: Body-nerve to RNA feedback*
- *Mystic & holistic practices*
- *Body <-> environment resonance attuning*
  - *Gene <-> substrate relationship*
  - *Cross-scale linkage*



# Praxis

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- *Consciousness & topological form*
  - *Light as Symmetry-breaking*
  - *Consciousness massages gravity*
  - *Balanced Asymmetrical transmutations*
  - *Direct congruence of electro-magnetic topology and consciousness*



# Expression

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- *Logo-morphism*
  - *Across cultural forms (Ecology, Food, Medicine, Genetics, Mythology, Law)*
  - *Cross-discovery via association of metaphorical relationships*
  - *General Systems Language*
  - *Open Source Genetics*



# My Thanks

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- *Roy and the PC 2006 committee,  
for stimulating the presentation*
- *Shawn Lawson and David LeBard,  
for their collaboration*
- *Maria Pastora,  
for the first light of the vision*