



Lecture 5

Patterns in Space

Geog 490/590
Spatial Modeling
Spring 2015

Today

1. How abm's work
2. Purpose of modeling
3. Seeing the world through patterns

so why model?

to predict?

- explain (not predict)
- guide data collection
- illuminate core dynamics
- suggest dynamical analogies
- discover new questions
- promote a scientific habit of mind
- bracket plausible range of outcomes
- illuminate uncertainties
- offer crisis options in near-real time
- demonstrate trade-offs
- challenge prevailing theories
- expose conflict between knowledge and data
- train practitioners
- discipline policy dialogue
- reveal the simple to be complex

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Patterns in Space

the question you should always now ask is:

what causes this pattern to exist?

Why are humans better at understanding
patterns than processes?

How do systems store information?

How do systems learn?

How do systems adapt?

What are the opposing forces that “keep the drift and tumult of history at bay”?