

Utilizing Interdisciplinary Geospatial Research Methods for Analysis

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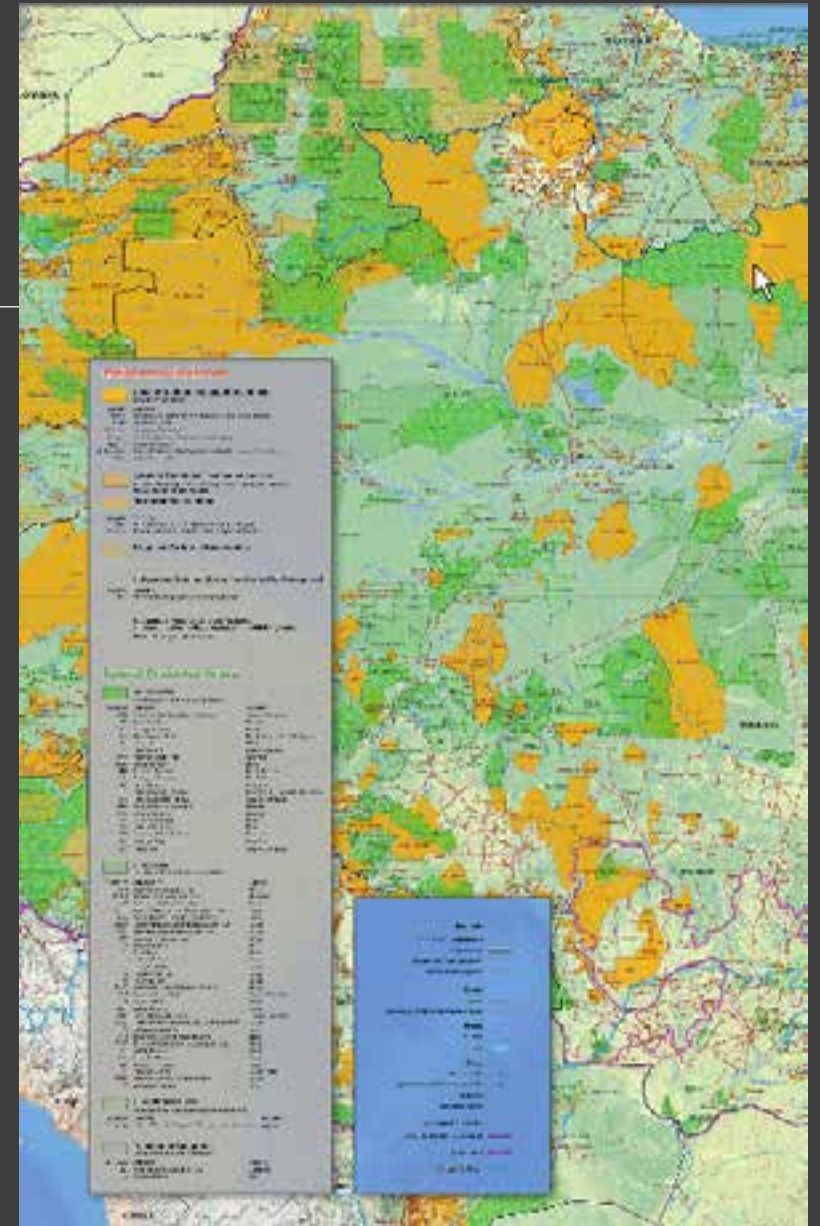
Issue/Problem

- Ø Value of spatial relationships, patterns, have a long history across many disciplines.
- Ø Ability to integrate different types of information/data relatively recent
- Ø Using Geographic Information Systems (GIS) enables one to actively consider space and place

Interdisciplinary

Ability to integrate different disciplines and approaches together.

Integrated Data



Thinking Spatially

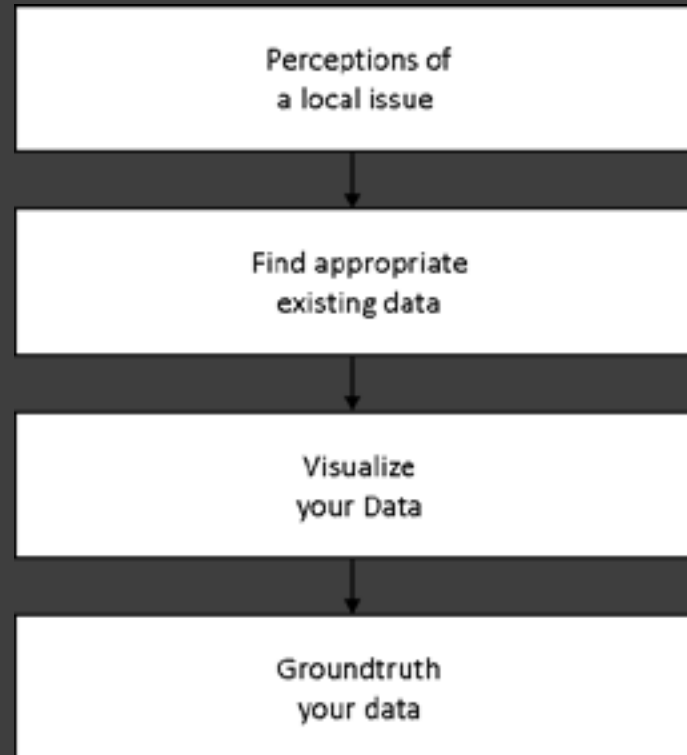


Sociospatial Thinking

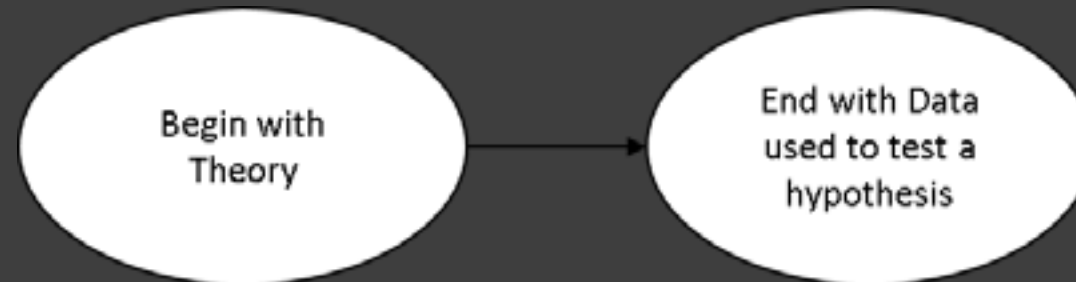
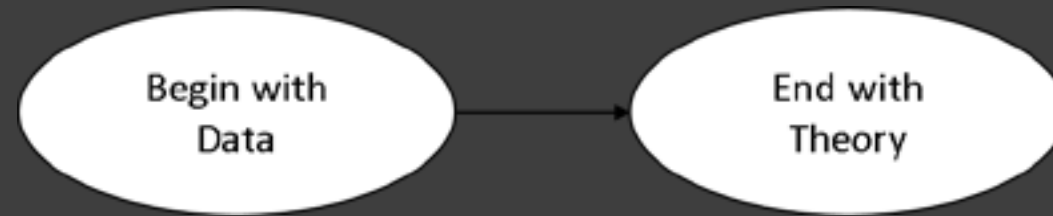
Sociospatial:

an integrated examination of space, place and social indicators in a holistic fashion (Steinberg and Steinberg 2009).

Sociospatial Thinking



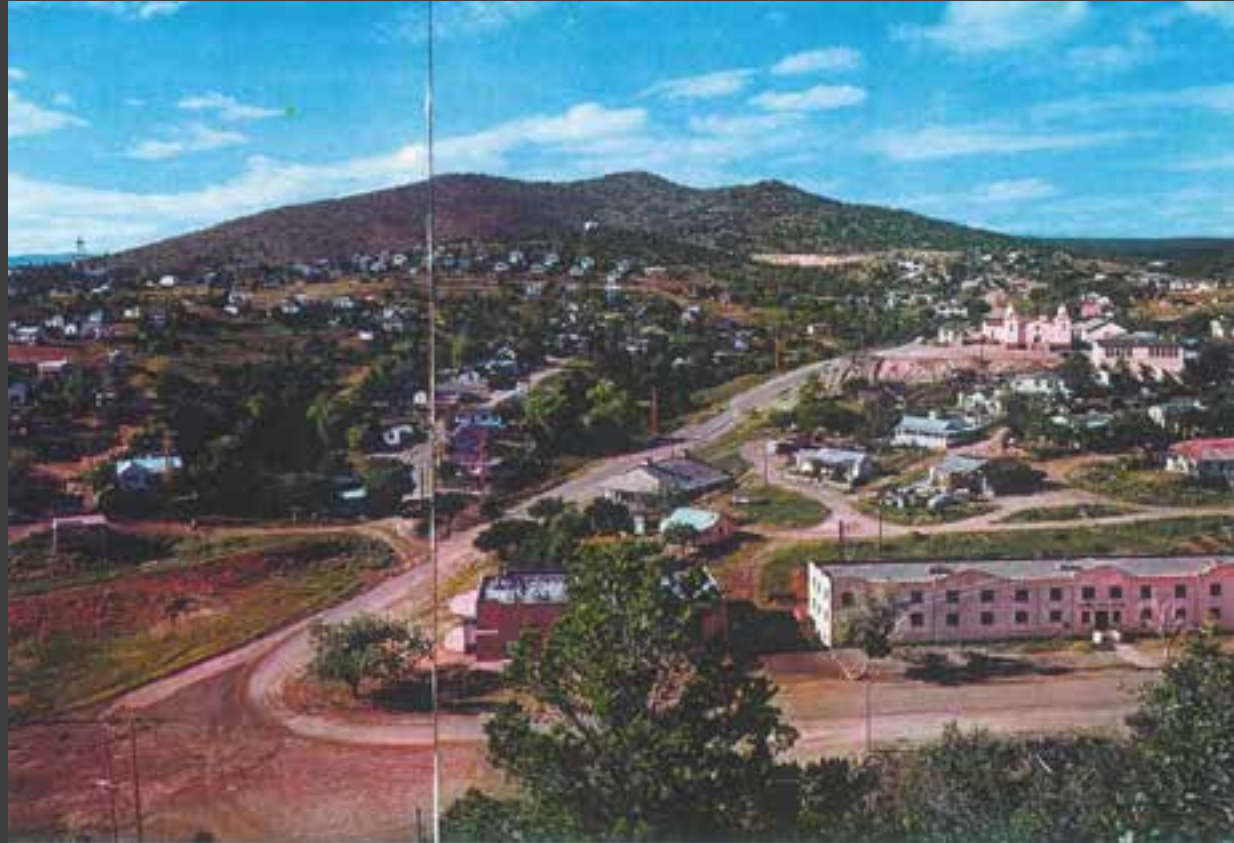
Inductive or Deductive Thinking?



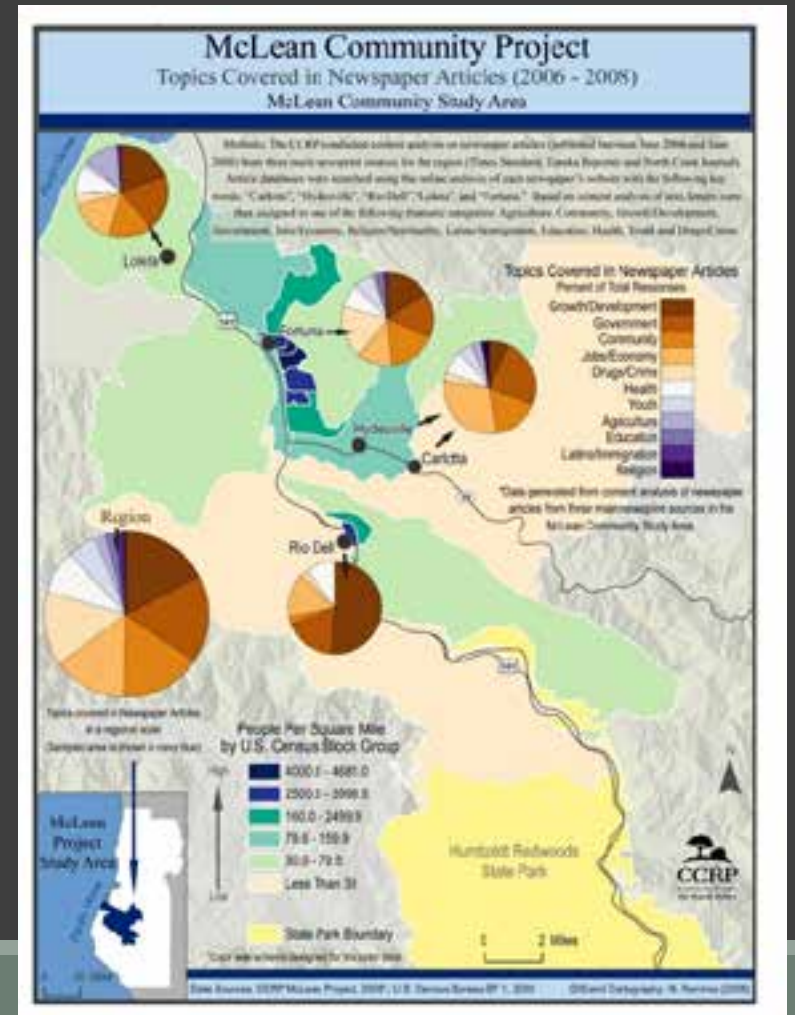
Sociospatial Grounded Theory: A New Approach to Research Methods

1. Determine a topic of interest
2. Determine a geographic location of interest
3. Collect the data (qualitative, spatially linked and social data).
4. Geocode the data.
5. Ground truth the data
6. Analyze the data and look for spatial and social patterns.
7. Generate theory (spatial and social).

Step 1: Determine geographic location of interest



Step 2: Collect data & Geocode Data



3. Collect the data



Step 4: Geocode the Data

Zip_Code	Respondent	Question_1	Question_2	Question_3	Question_4
55113	A	4	3	5	5
55401	B	2	4	3	3
55112	C	5	4	4	5

Zip_Code, Respondent, Question_1, Question_2, Question_3, Question_4

55113, A, 4, 3, 5, 5

55401, B, 2, 4, 3, 3

55112, C, 5, 4, 4, 5

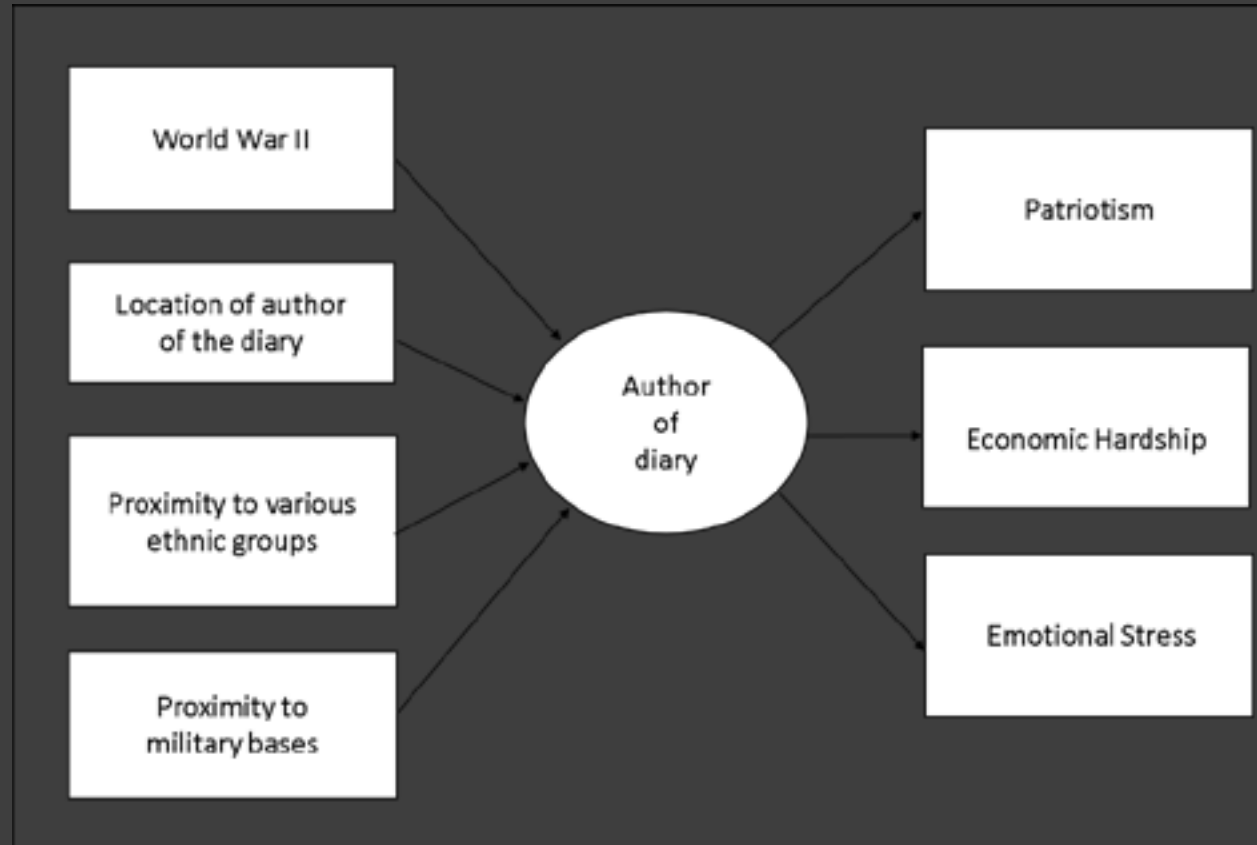
Step 3: Ground Truth the Data



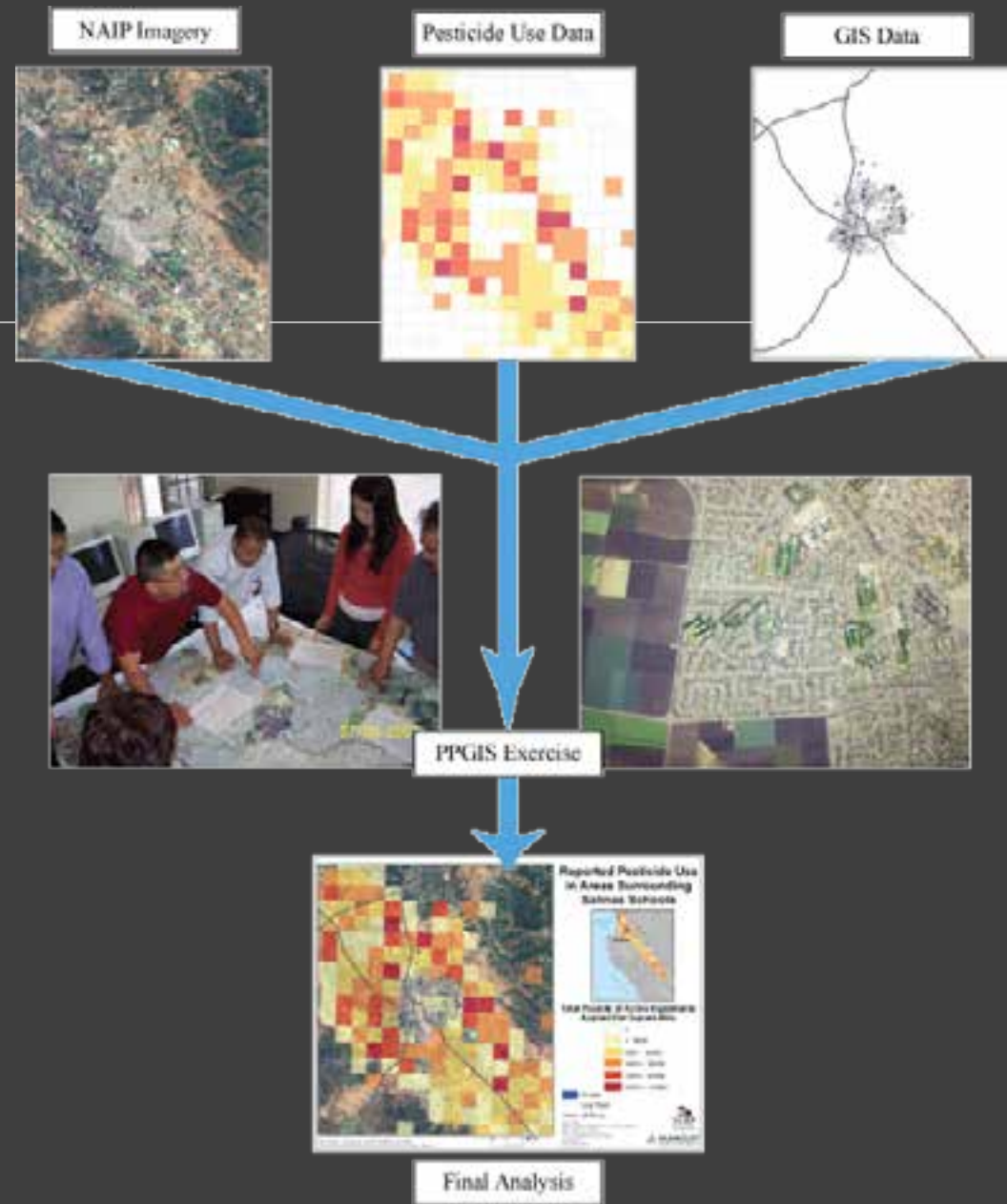
Step 4, 5: Analyze the data & look for spatial/social patterns



Step 7: Generate Theory



Integrated Data



Multiple Methods

Using multiple methods enables the researcher to triangulate the situation.

Interdisciplinary Spatial Approach- Advantages

1. Visualization

2. Communication

3. Implementation

4. Contextualization

5. Integration

Conclusion

- Ø Being able to use GIS helps to create multiple views of a situation/problem/issue
- Ø Enables one to see the “big picture”
- Ø Fosters better decision-making
- Ø Enables clearer communication around issues