

Mapping East Los

An Introduction to GIS and Gentrification

“The more students work at storing deposits entrusted to them, the less they develop the critical consciousness which would result from their intervention in the world as transformers of that world. The more completely they accept the passive role imposed on them, the more they tend simply to adapt to the world as it is and to the fragmented view of reality deposited in them.”

- Paulo Freire

Agenda

- What is a GIS?
- Introduction to geospatial data
- Gentrification Storyboarding
- Mapping exercise
- Concluding thoughts

A Geographic Information System (GIS) links spatial (locational) and tabular (database) information (data) and enables a person to visualize those patterns, relationships, and trends.

HARDWARE

The hardware is the computer and peripherals on which the GIS operates. Today, this could be a centralized computer server running the UNIX or Windows NT operating systems, a desktop PC, or an Apple Macintosh. The computer may operate in isolation or in a networked configuration.

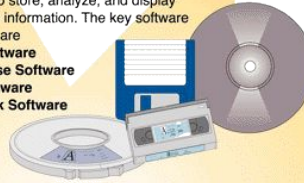
- Computers
- Networks
- Peripheral Devices
 - Printers
 - Plotters
 - Digitizers



SOFTWARE

GIS software provides the functions and tools users need to store, analyze, and display geographical information. The key software components are

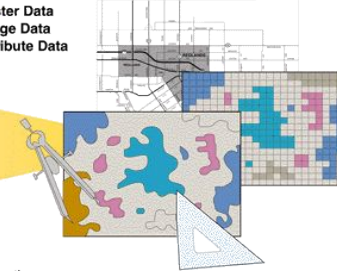
- GIS Software
- Database Software
- OS Software
- Network Software



DATA

One of the most important component of GIS is the data. It is absolutely essential that data be accurate. The following are different data types:

- Vector Data
- Raster Data
- Image Data
- Attribute Data



GIS

PEOPLE

GIS technology is clearly of limited value without people to manage the system and to develop plans for applying it. Users of GIS range from highly qualified technical specialists to planners, foresters, and market analysts who use GIS to help with their everyday work.

- Administrators
- Managers
- GIS Technicians
- Application Experts
- End Users
- Consumers



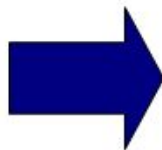
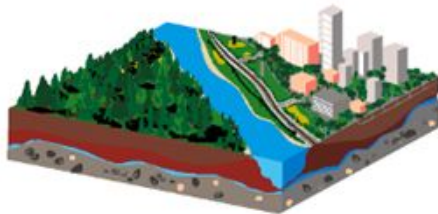
METHODS

Methods are well designed plans and application-specific business rules describing how technology is applied. This includes the following:

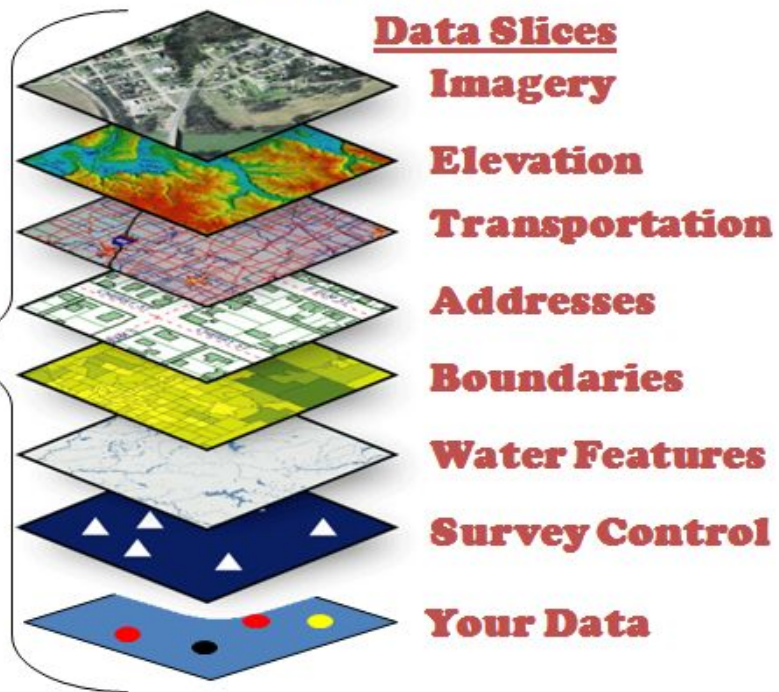
- Guidelines
- Specifications
- Standards
- Procedures




The Real World



GIS World Model





Salesperson	Country	2011		2012		2013		Total	
		Units	Order Amt	Units	Order Amt	Units	Order Amt	Units	Order Amt
Bromley	UK	232	24,756.89	228	40,396.64	73	9,894.51	533	75,048.04
Bromley	USA	58	7,553.95	27	3,654.00	7	1,101.20	92	12,309.15
Callahan	USA	623	49,400.07	337	43,263.95	200	18,059.50	1,160	110,723.52
Coghill	UK	81	4,029.25	39	4,657.11			120	8,686.36
Coghill	USA	885	120,626.31	520	46,505.90	405	49,945.11	1,810	217,077.32
Farnham	UK	170	14,055.87	44	5,892.65	17	2,560.40	231	22,508.92
Farnham	USA	699	89,663.20	506	73,360.59	217	15,663.56	1,422	178,687.35
Finchley	USA	699	95,850.36	487	55,787.97	302	30,861.76	1,488	182,500.09
Fuller	USA	539	71,168.14	473	73,524.18	170	17,811.46	1,182	162,503.78
Gillingham	UK	397	40,826.37	276	17,181.58	202	14,519.68	875	72,527.63
Gloucester	UK	209	31,433.16	143	19,691.89	135	17,667.20	487	68,792.25
Rayleigh	UK	422	59,827.19	268	41,903.64	131	15,232.16	821	116,962.99
Grand Total		5,014	609,190.76	3,348	425,820.10	1,859	193,316.54	10,221	1,228,327.40

Point



0, 0

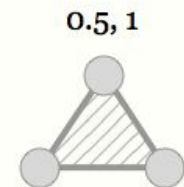
Line



0, 0

1, 0

Polygon



0.5, 1

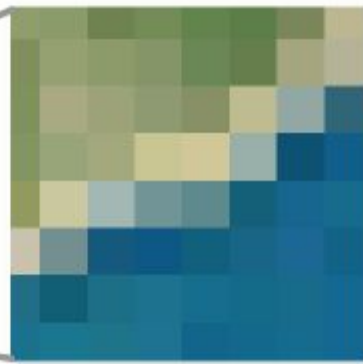
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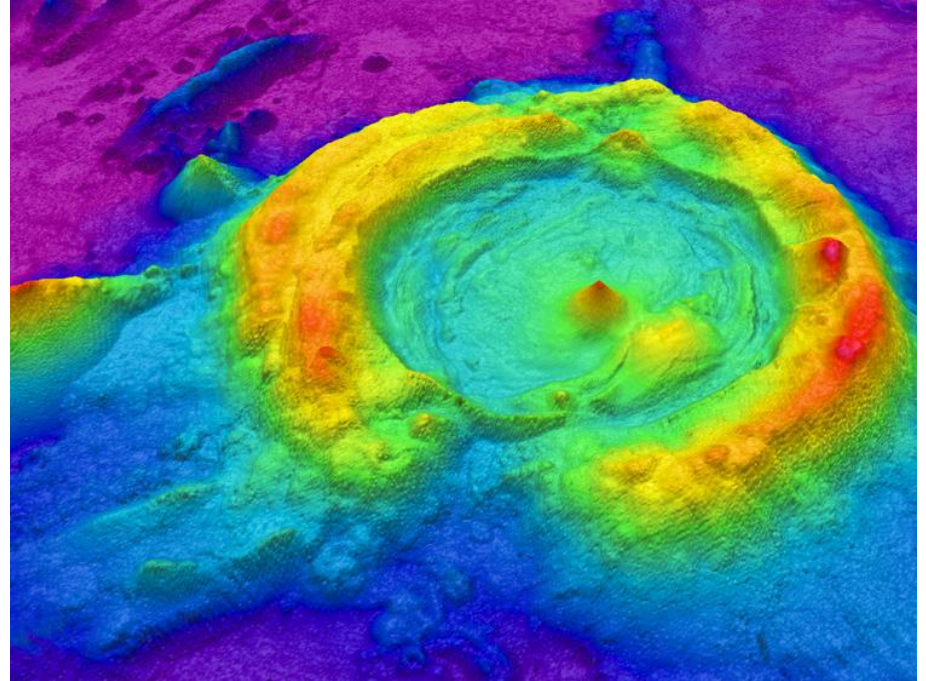
1, 0

Image

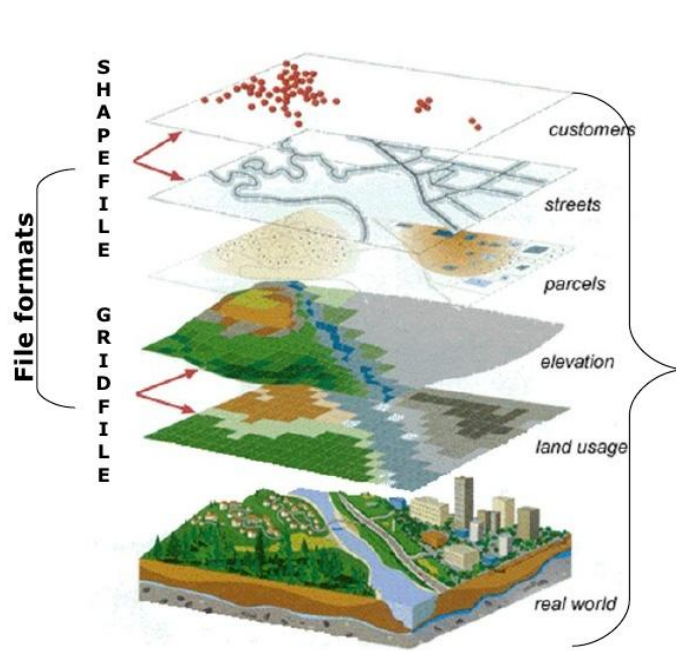


Pixels

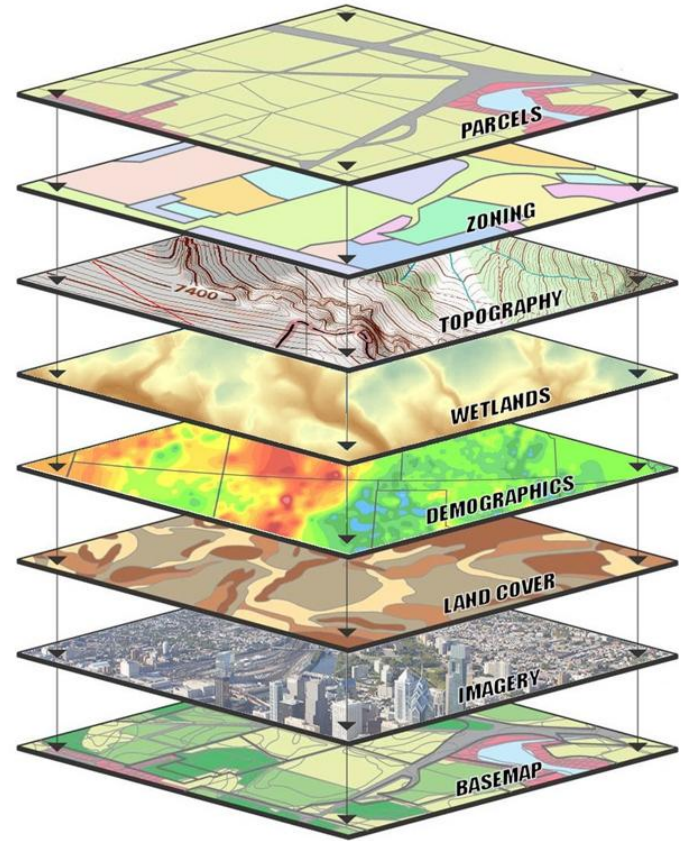




Map of a huge caldera in the NE Lau Basin, created from multibeam data processed with GIS software.
NOAA: <http://oceanexplorer.noaa.gov/technology/tools/mapping/mapping.html>



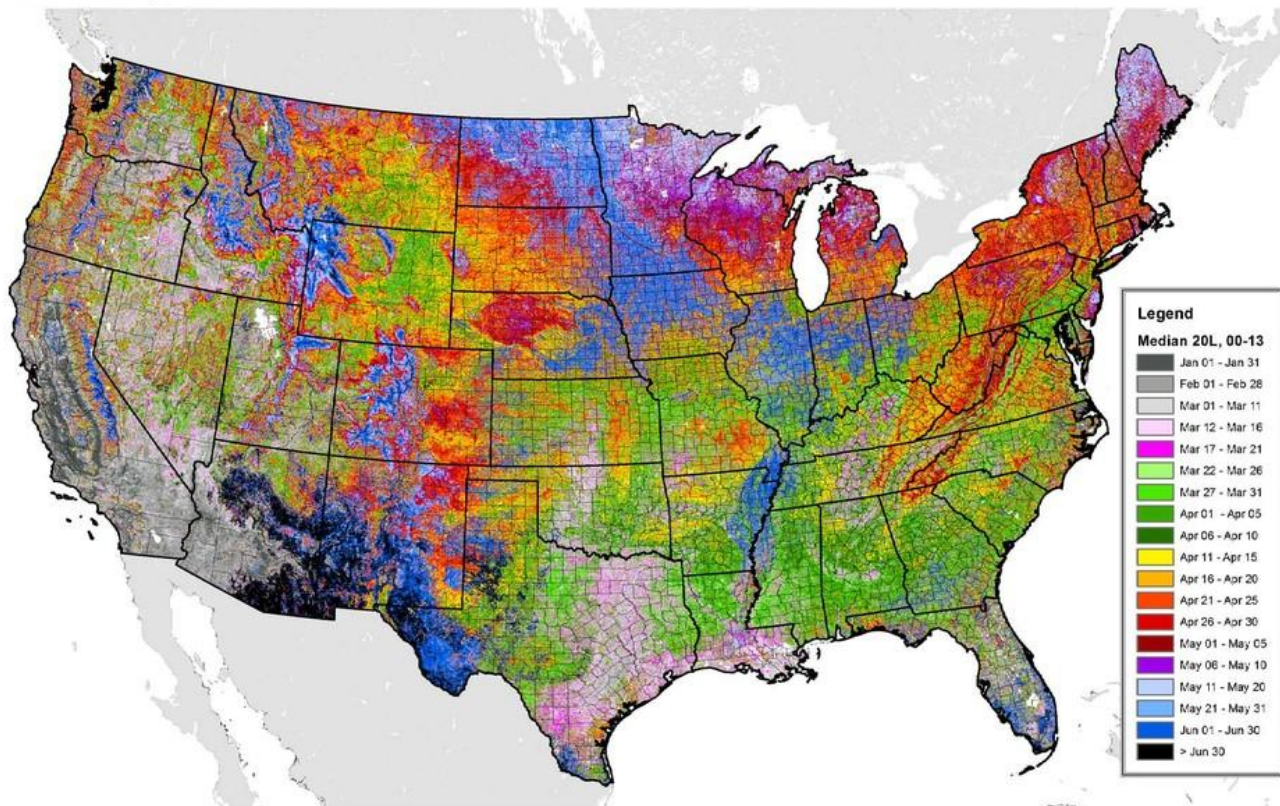
GIS : A geographic information system (GIS), also known as a geographical information system, is an information system for **capturing, storing, analyzing, managing and presenting data which are spatially referenced** (linked to location).

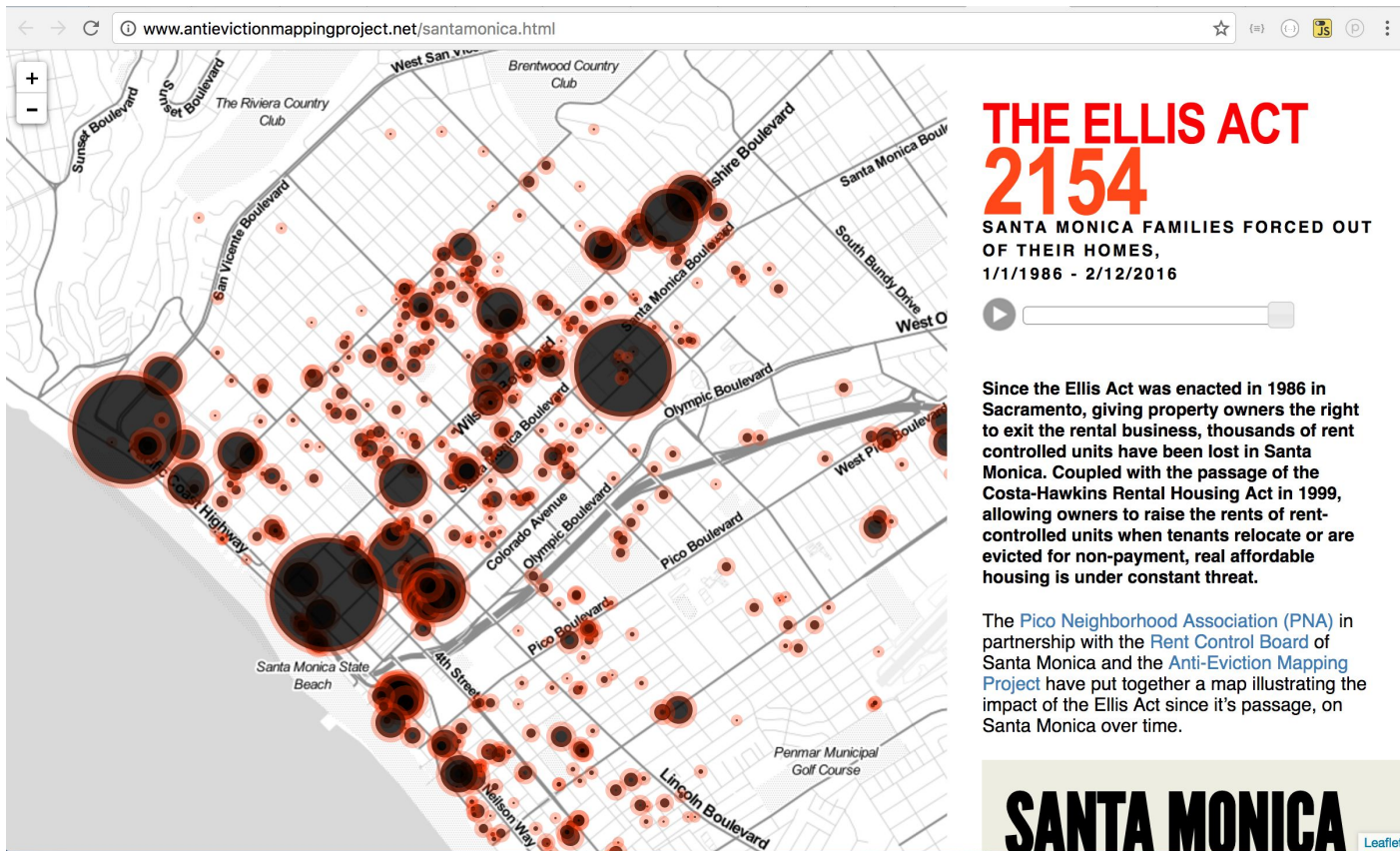


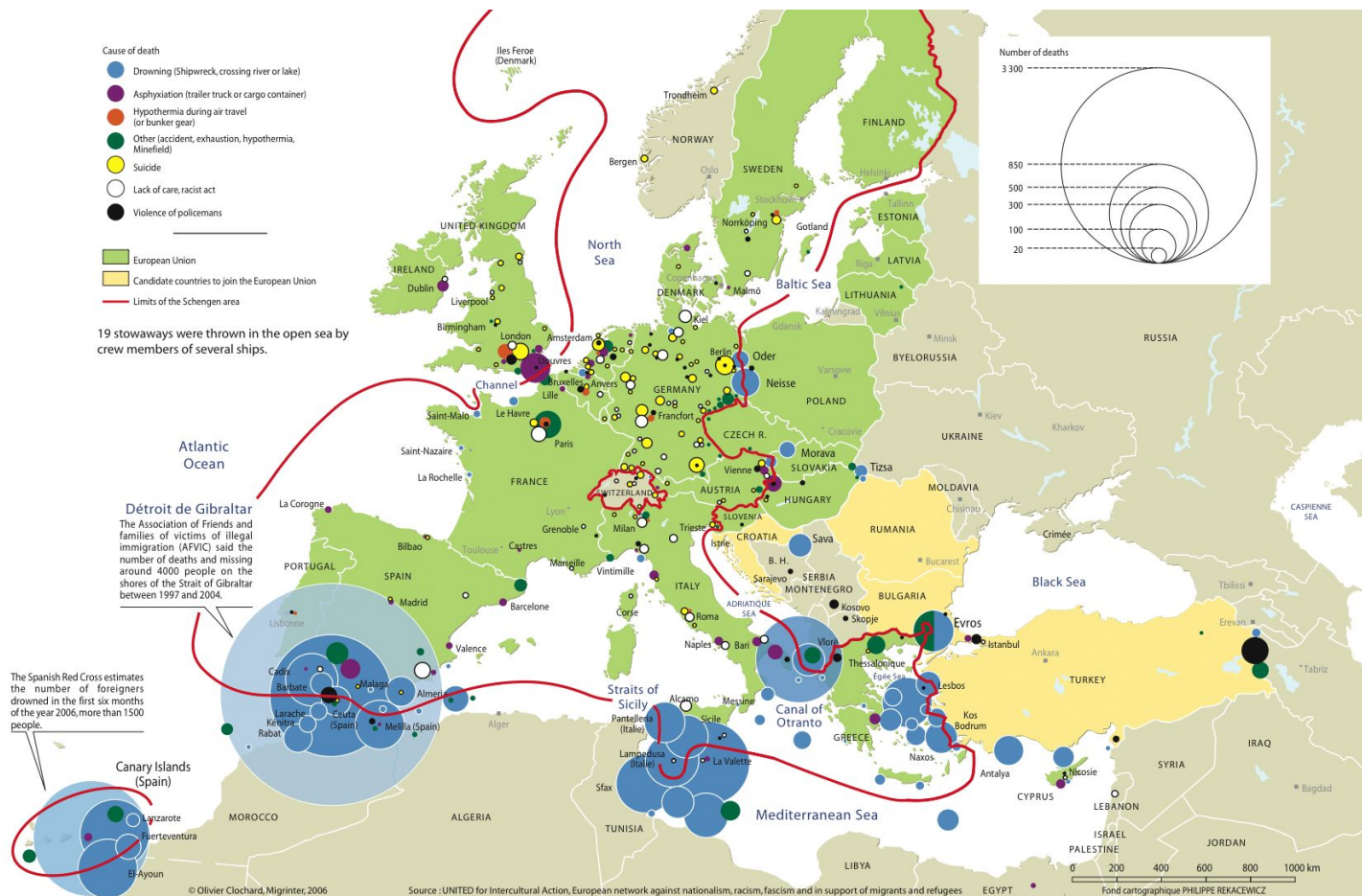


Eastern Forest Environmental Threat
Assessment Center, March 2015

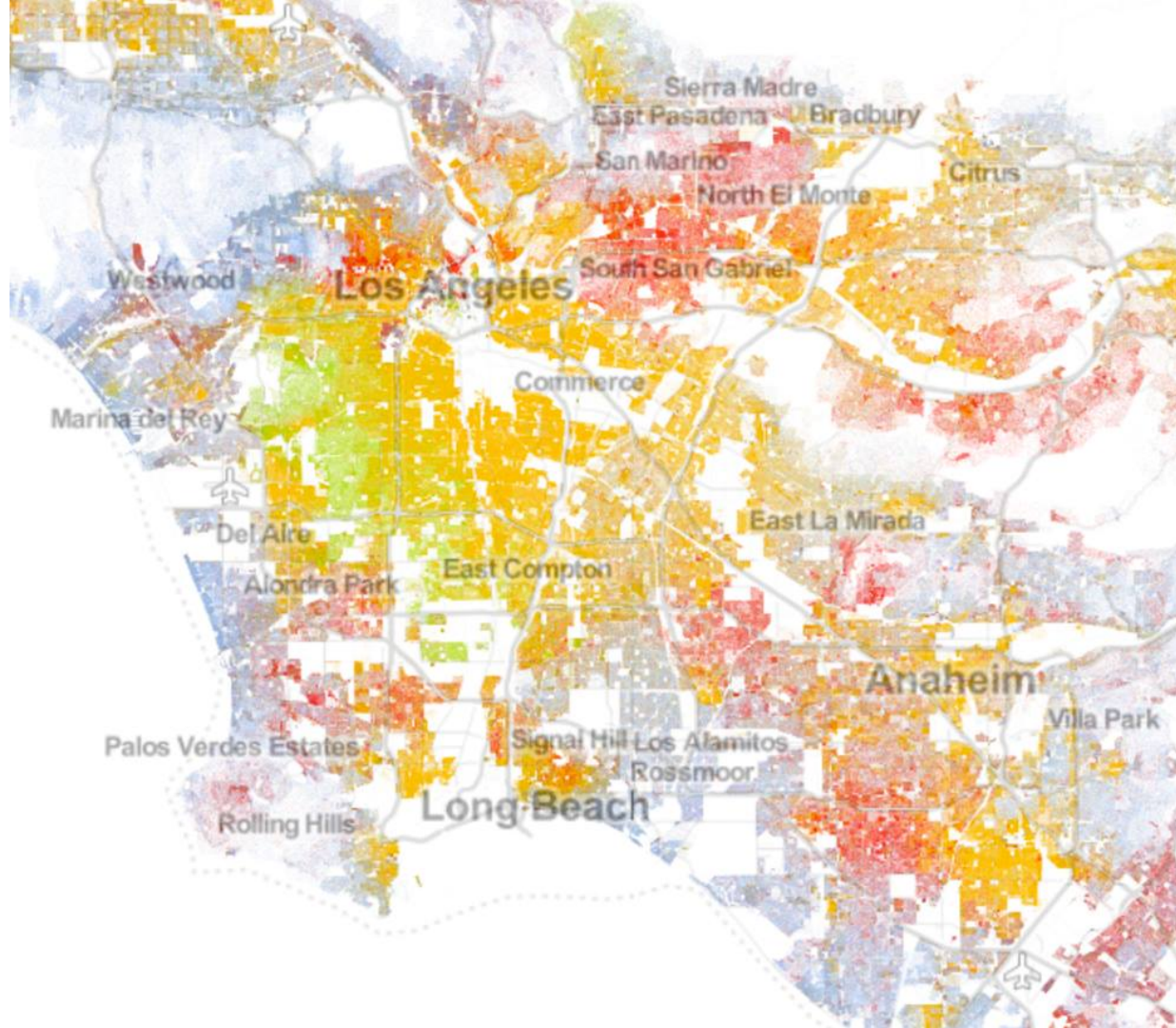
ForWarn's Median Start of Greenup Date for All Vegetation, 2000-2013





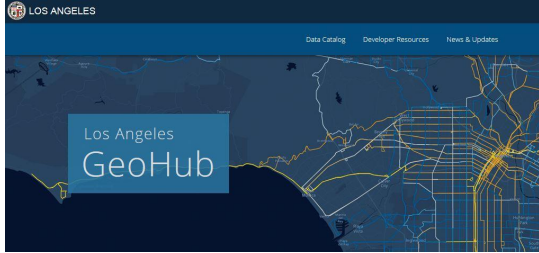






Storyboarding

- How would you define gentrification?
- What words would you use to describe the process of gentrification?
- What words would you use to describe the effects of gentrification?
- What types of data would you employ to characterize the process of gentrification?
- What methods would you use to identify gentrification?
- What information are you using to tell your story of gentrification?
- What areas do you think are being affected by gentrification in Los Angeles?



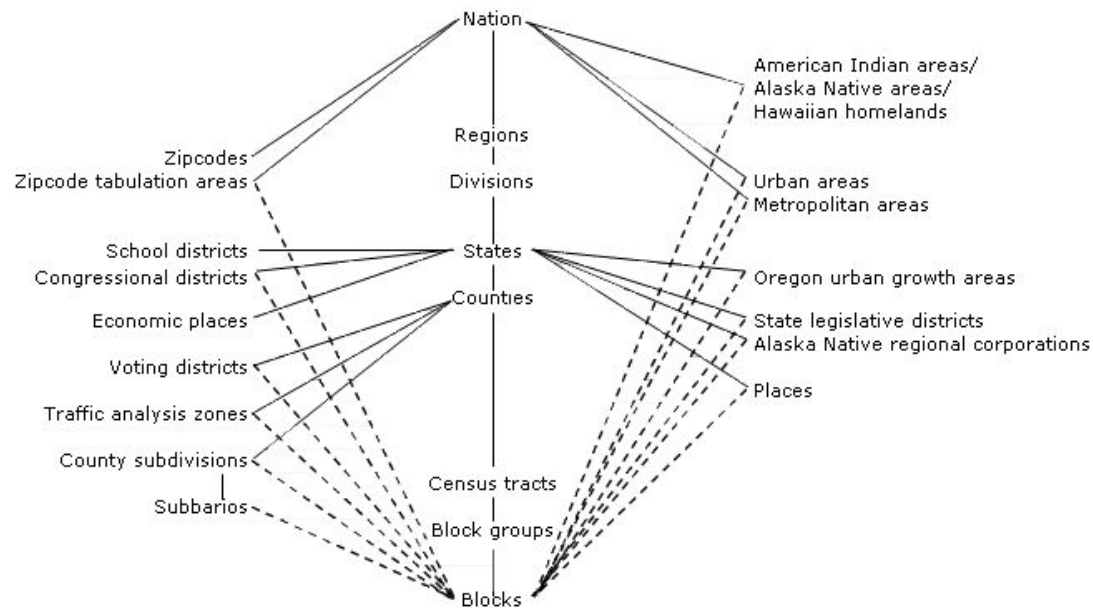
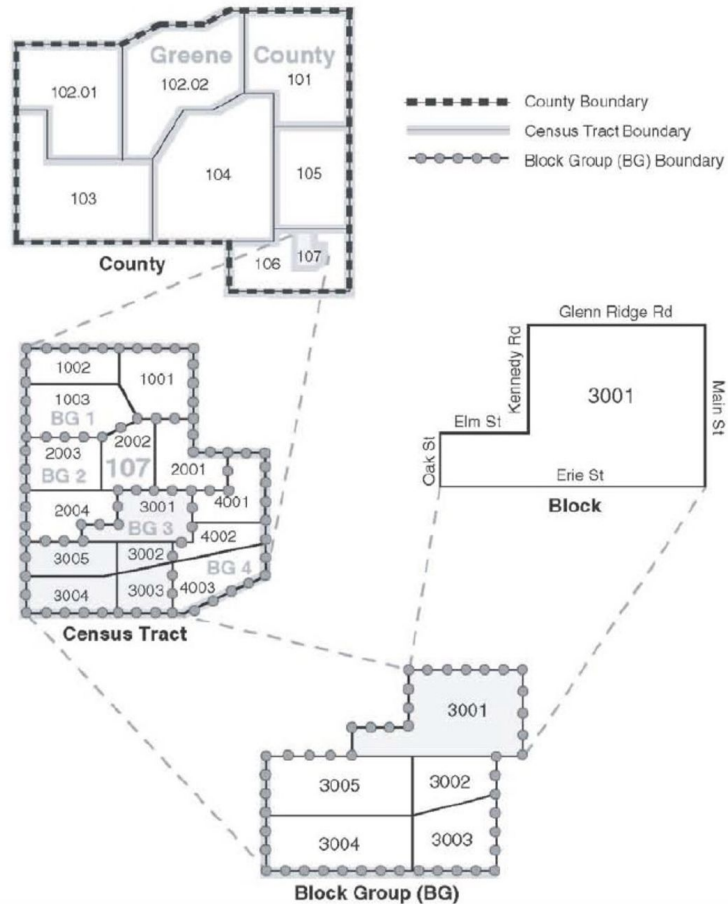
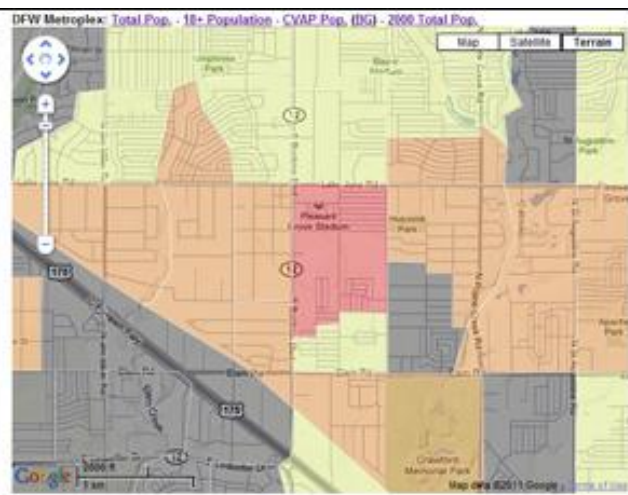
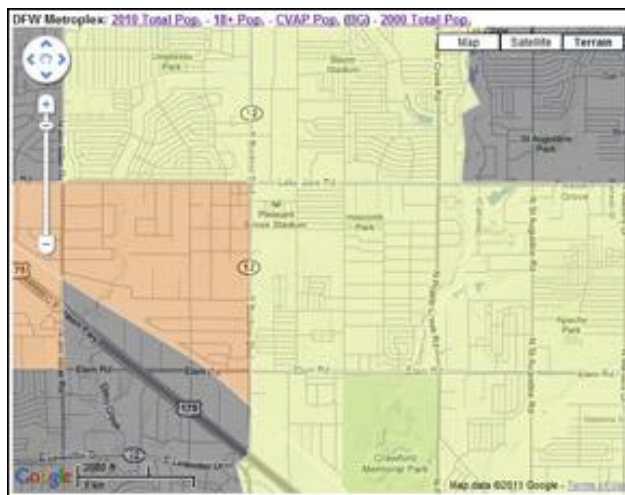


Figure 3. Geographic Relationships—Small Area Statistical Entities
County-Census Tract-Block Group-Block





Census Tract Typology Classification

Lower Income Tracts (> 39% of HH are considered Low Income)	Moderate to High Income Tracts (<39% of HH are considered Low Income)
Not losing low income households or very early stages Does not fall within any of the below categories	Not losing low income households or very early stages Does not fall within any of the below categories
At risk of gentrification or displacement <ul style="list-style-type: none"> • Strong market • In TOD • Historic housing stock • Losing market rate affordable units • Employment center 	At risk of displacement <ul style="list-style-type: none"> • Strong market • In TOD • Historic housing stock • Losing market rate affordable units • Employment center
Undergoing displacement <ul style="list-style-type: none"> • Already losing low income households, naturally affordable units, and in-migration of low income residents has declined • Stable or growing in size 	Undergoing displacement <ul style="list-style-type: none"> • Already losing low income households • Decline in either naturally affordable units or in-migration of low income residents • Stable or growing in size
Advanced Gentrification <ul style="list-style-type: none"> • Gentrified between 1990 and 2000 or between 2000 and 2013 based on: <ul style="list-style-type: none"> ◦ Neighborhood vulnerability ◦ Demographic change ◦ Real estate investment 	Advanced Exclusion <ul style="list-style-type: none"> • Very low proportion of low income households • Very low in-migration of low income households





Is “gentrification the new colonialism?”

What is your role in that process?

What is to be done?

“Now is the accepted time, not tomorrow, not some more convenient season. It is today that our best work can be done and not some future day or future year. It is today that we fit ourselves for the greater usefulness of tomorrow. Today is the seed time...and tomorrow comes the harvest...”

- W.E.B. Du Bois

Thank you.

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