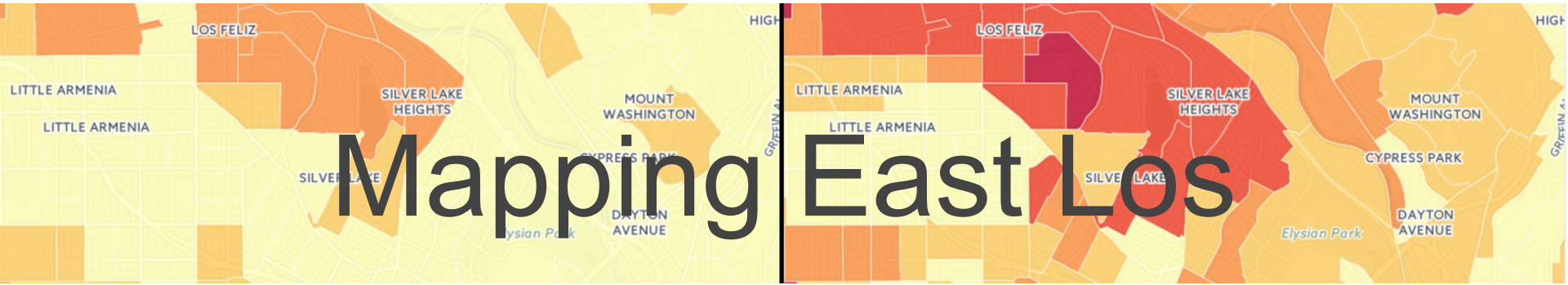


Mapping East Los

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
- Final thoughts

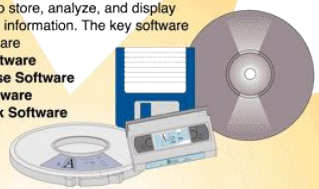
A Geographic Information System (GIS) links locational (spatial) and database (tabular) information and enables a person to visualize patterns, relationships, and trends. This process gives an entirely new perspective to data analysis that cannot be seen in a table or list format. The five components of a GIS are listed below.

GIS

SOFTWARE

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

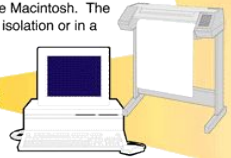
- **GIS Software**
- **Database Software**
- **OS Software**
- **Network Software**



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.

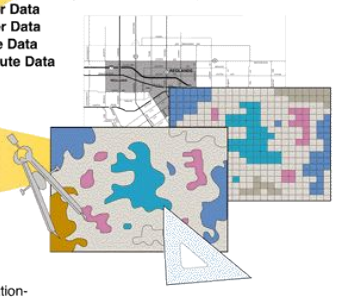
- **Computers**
- **Networks**
- **Peripheral Devices**
  - **Printers**
  - **Plotters**
  - **Digitizers**



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**



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**

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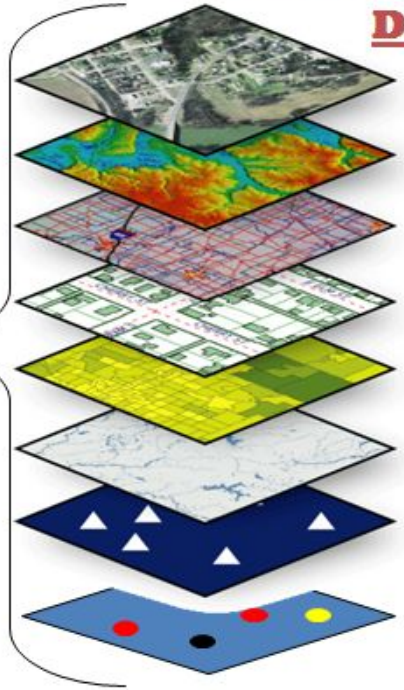
The Real World

GIS World Model



Data Slices

Imagery

Elevation

Transportation

Addresses

Boundaries

Water Features

Survey Control

Your Data

		2011		2012		2013		Total	
Salesperson	Country	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

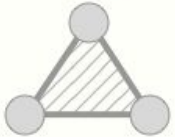
0, 0

Line

0, 0 1, 0

Polygon

0.5, 1



0, 0 1, 0

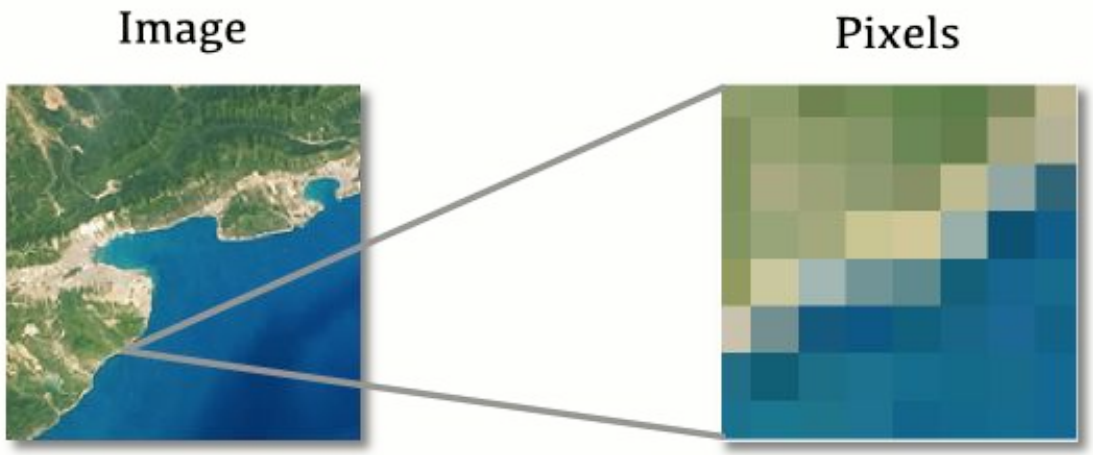
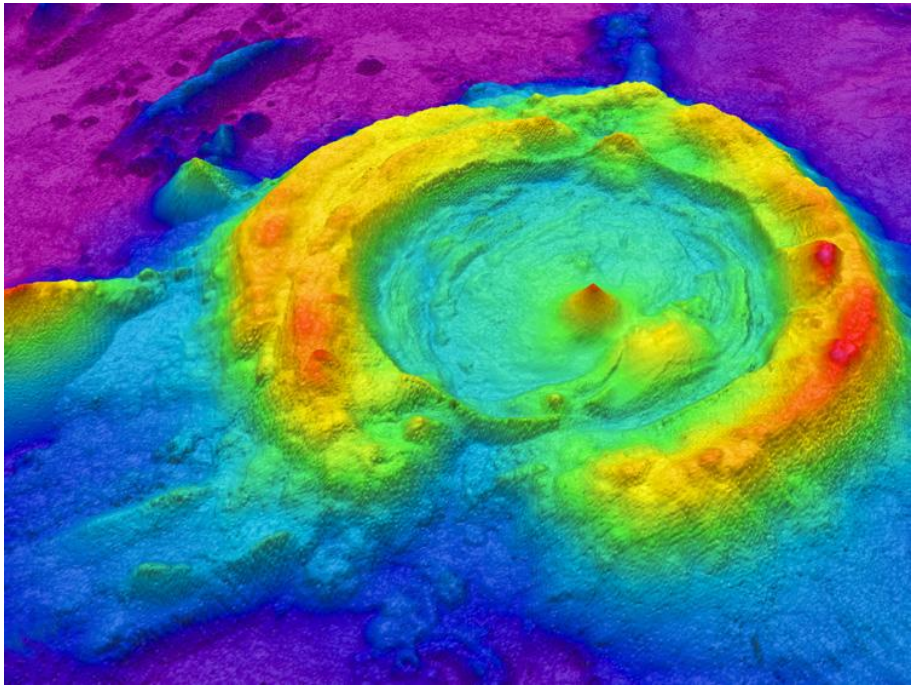
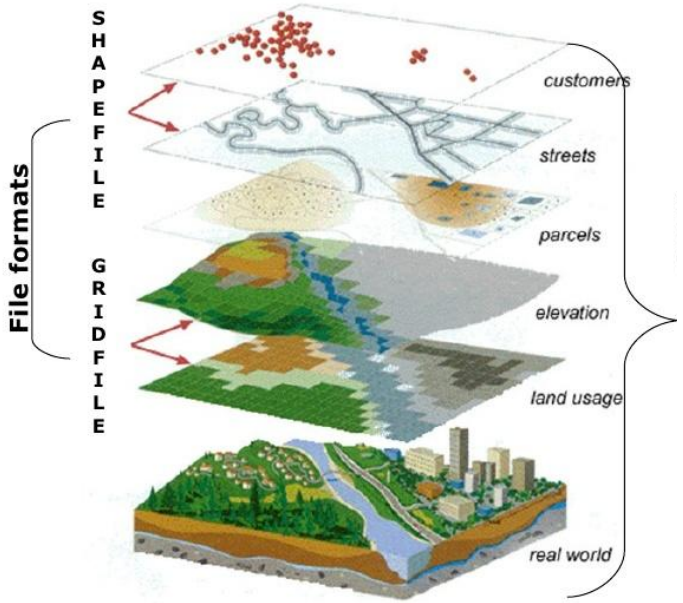


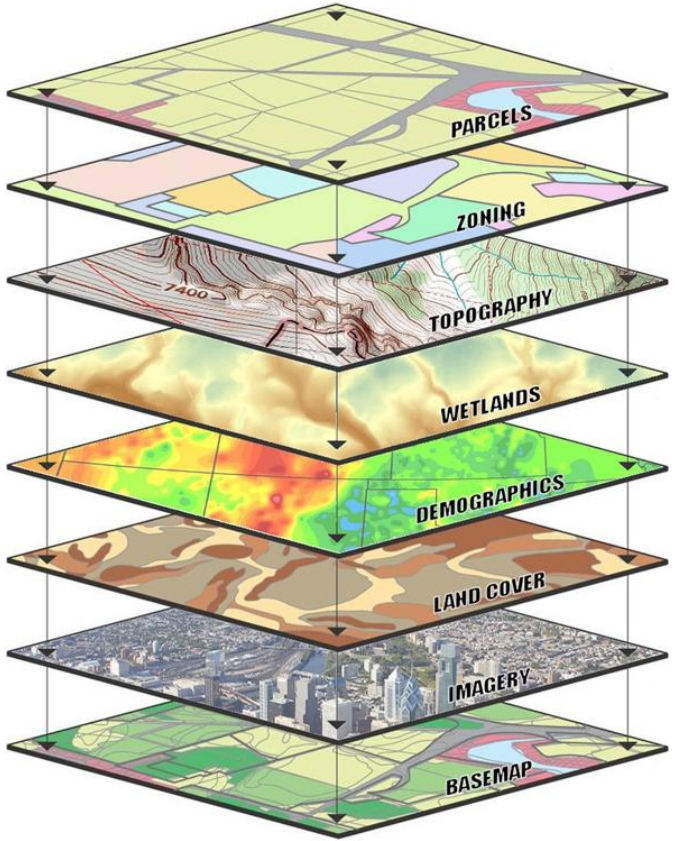
Image
Pixels



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).**

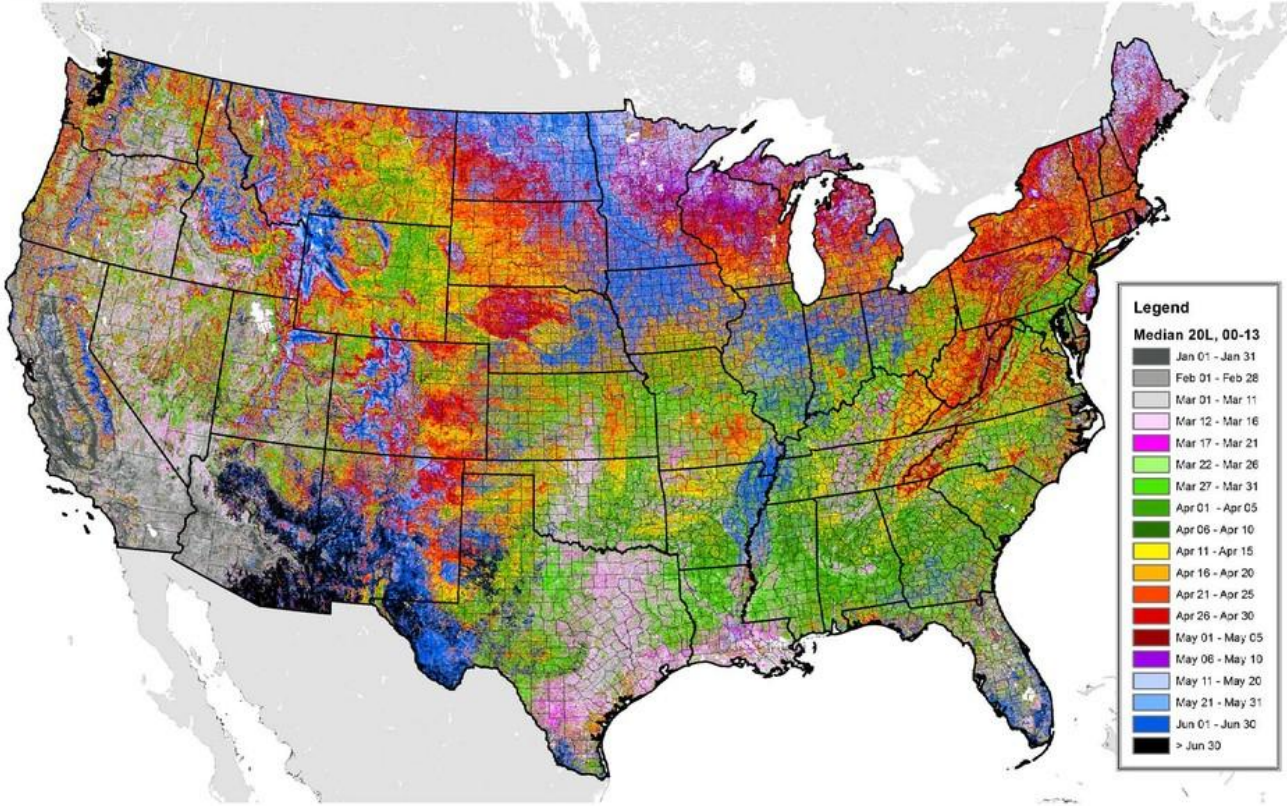


USDA

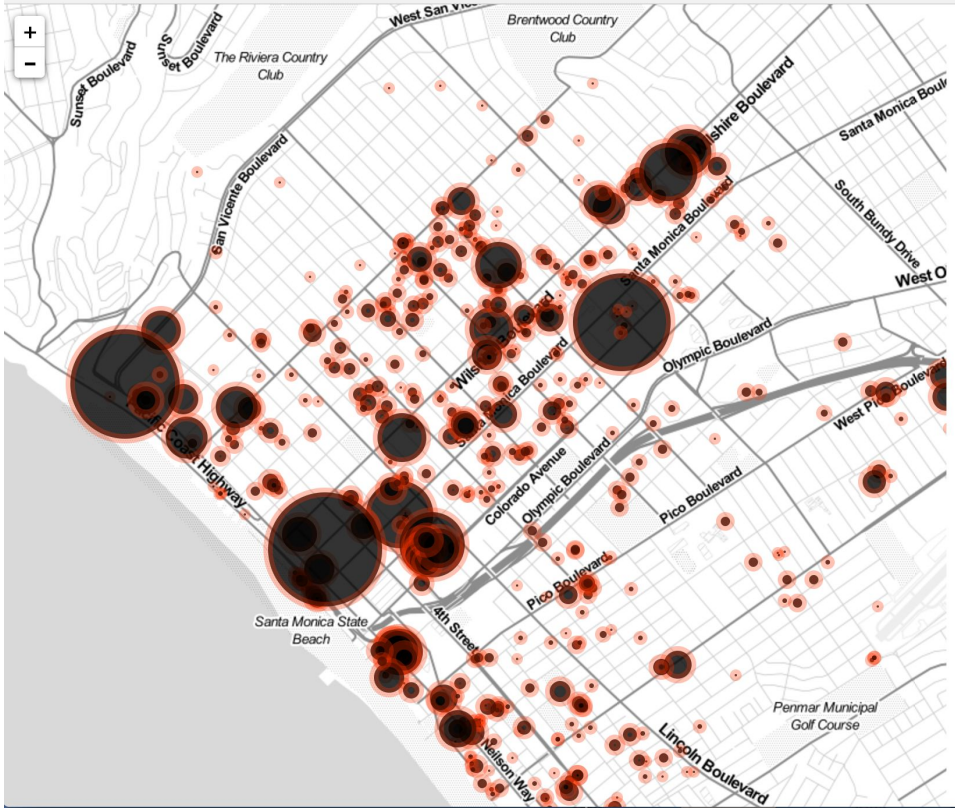
Eastern Forest Environmental Threat Assessment Center, March 2015

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

NASA



www.antievictionmappingproject.net/santamonica.html



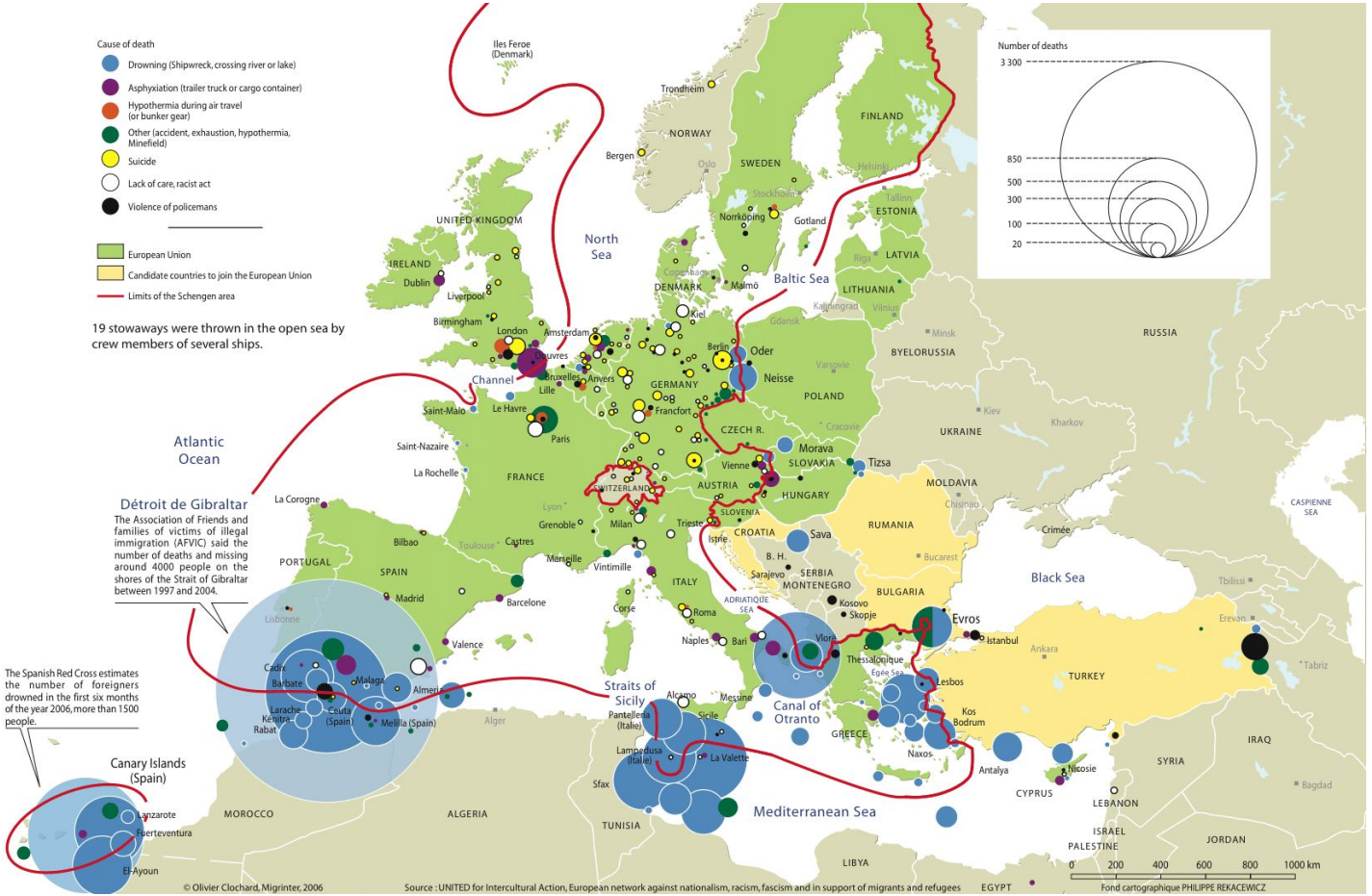
THE ELLIS ACT 2154

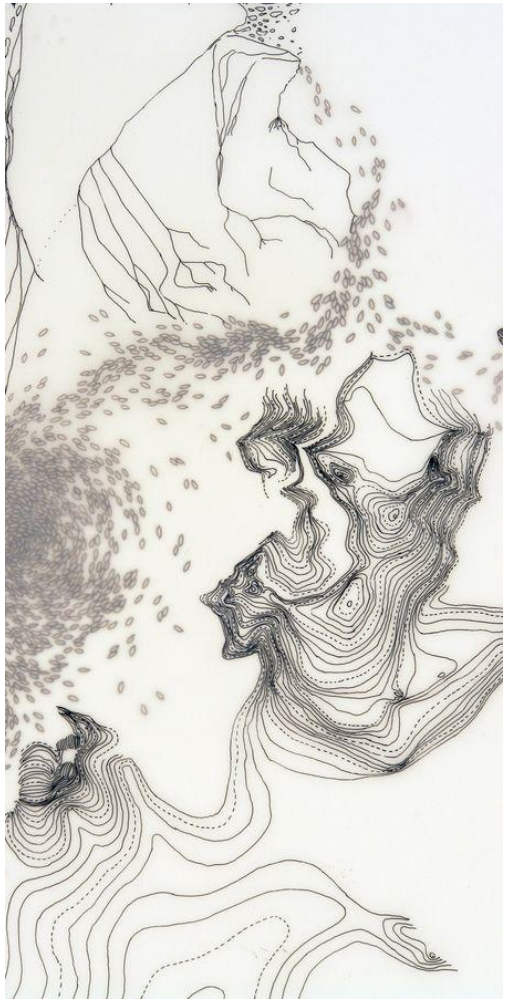
SANTA MONICA FAMILIES FORCED OUT OF THEIR HOMES, 1/1/1986 - 2/12/2016

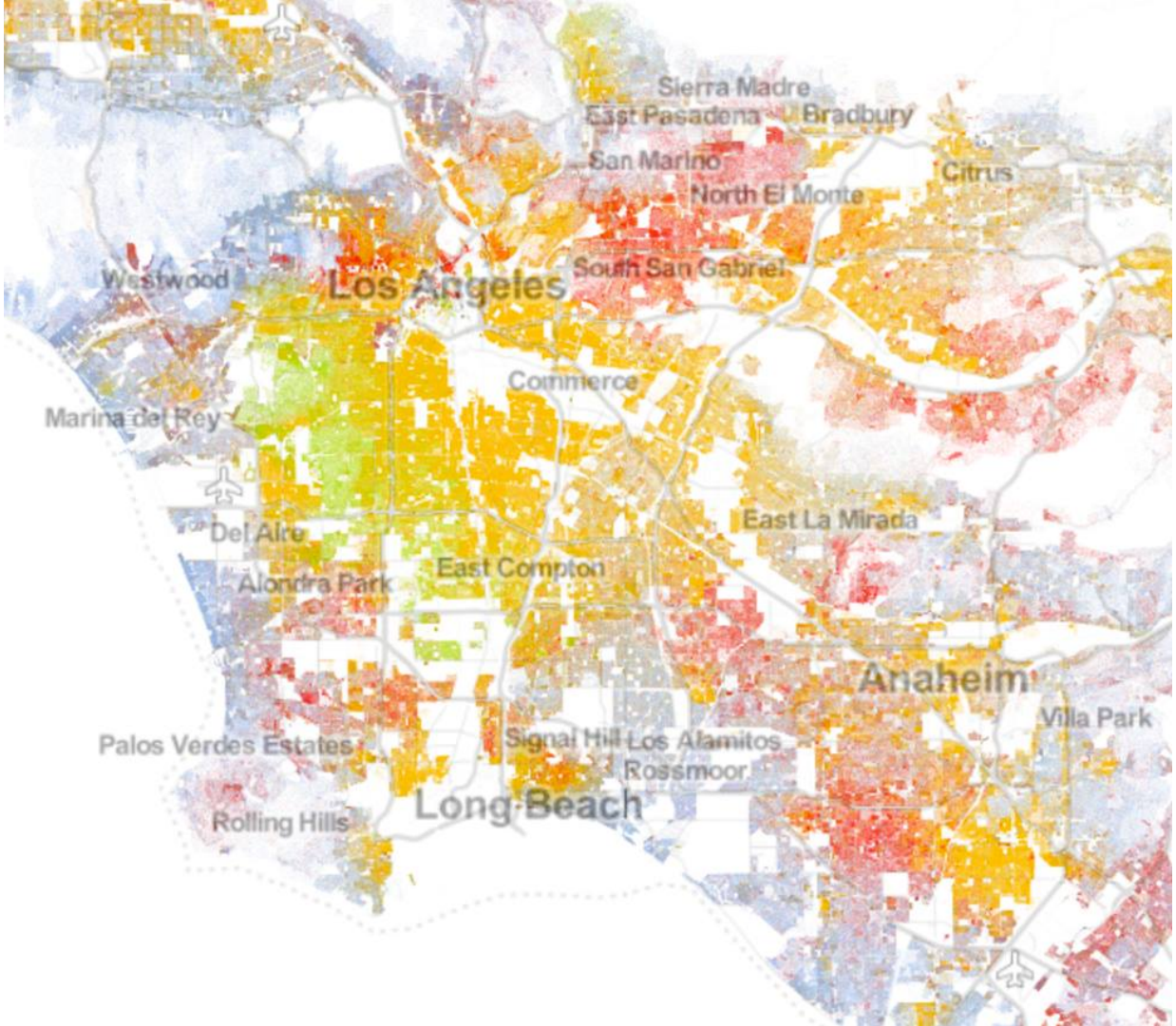
Since the Ellis Act was enacted in 1986 in Sacramento, giving property owners the right to exit the rental business, thousands of rent controlled units have been lost in Santa Monica. Coupled with the passage of the Costa-Hawkins Rental Housing Act in 1999, allowing owners to raise the rents of rent-controlled units when tenants relocate or are evicted for non-payment, real affordable housing is under constant threat.

The Pico Neighborhood Association (PNA) in partnership with the Rent Control Board of Santa Monica and the Anti-Eviction Mapping Project have put together a map illustrating the impact of the Ellis Act since it's passage, on Santa Monica over time.

SANTA MONICA


Cause of death
Drowning (Shipwreck, crossing river or lake)
Asphyxiation (trailer truck or cargo container)
Hypothermia during air travel (or bunker gear)
Other (accident, exhaustion, hypothermia, Minefield)
Suicide
Lack of care, racist act
Violence of policemans
European Union
Candidate countries to join the European Union
Limits of the Schengen area
19 stowaways were thrown in the open sea by crew members of several ships.
Number of deaths
3 300
850
500
300
100
20
Iles Feroe (Denmark)
North Sea
Baltic Sea
Channel
Atlantic Ocean
Détroit de Gibraltar
The Association of Friends and families of victims of illegal immigration (AFVIC) said the number of deaths and missing around 4000 people on the shores of the Strait of Gibraltar between 1997 and 2004.
The Spanish Red Cross estimates the number of foreigners drowned in the first six months of the year 2006, more than 1500 people.
Canary Islands (Spain)
Lanzarote
Fuerteventura
El-Ayoun
Straits of Sicily
Canal of Otranto
Mediterranean Sea
Black Sea
Trondheim
NORWAY
Bergen
SWEDEN
FINLAND
Helsinki
Tallinn
ESTONIA
Stockholm
Norrköping
Gotland
LATVIA
Riga
LITHUANIA
Vilnius
Kaliningrad
Gdansk
Minsk
BYELORUSSIA
RUSSIA
UNITED KINGDOM
IRELAND
Dublin
Liverpool
Birmingham
London
Amsterdam
Douvres
Bruxelles
Anvers
Lille
Le Havre
Paris
Saint-Malo
Saint-Nazaire
La Rochelle
FRANCE
DENMARK
Copenhague
Malmö
Kiel
Berlin
Oder
Neisse
GERMANY
Francfort
POLAND
Varsovie
Cracovie
CZECH R.
Morava
SLOVAKIA
Tizsa
Vienne
AUSTRIA
HUNGARY
SWITZERLAND
Lyon
Grenoble
Milan
Trieste
SLOVENIA
Istrie
CROATIA
Sava
B. H.
Sarajevo
SERBIA
MONTENEGRO
Kosovo
Skopje
RUMANIA
Bucarest
MOLDAVIA
Chisinau
UKRAINE
Kiev
Kharkov
Crimée
CASPIENNE SEA
Tbilissi
Erevan
Tabriz
Ankara
TURKEY
BULGARIA
Evros
Istanbul
Thessalonique
Egée Sea
Lesbos
Kos
Bodrum
Naxos
Antalya
GREECE
Vlore
Bari
Naples
Roma
Corse
ITALY
Messine
Sicile
Alcamo
Pantelleria (Italie)
Lampedusa (Italie)
La Valette
Sfax
TUNISIA
ADRIATIQUE SEA
Cadix
Barbate
Malaga
Almeria
Larache
Kenitra
Rabat
Ceuta (Spain)
Melilla (Spain)
Alger
MOROCCO
ALGERIA
LIBYA
EGYPT
Lisbonne
PORTUGAL
SPAIN
Madrid
Barcelone
Valence
Bilbao
La Corogne
Toulouse
Castres
Marseille
Vintimille
Lyon
Cyprus
Nicosie
CYPRUS
LEBANON
SYRIA
IRAQ
Bagdad
ISRAEL
PALESTINE
JORDAN
0 200 400 600 800 1000 km
© Olivier Clochard, Migrinter, 2006
Source : UNITED for Intercultural Action, European network against nationalism, racism, fascism and in support of migrants and refugees
Fond cartographique PHILIPPE REKACEWICZ



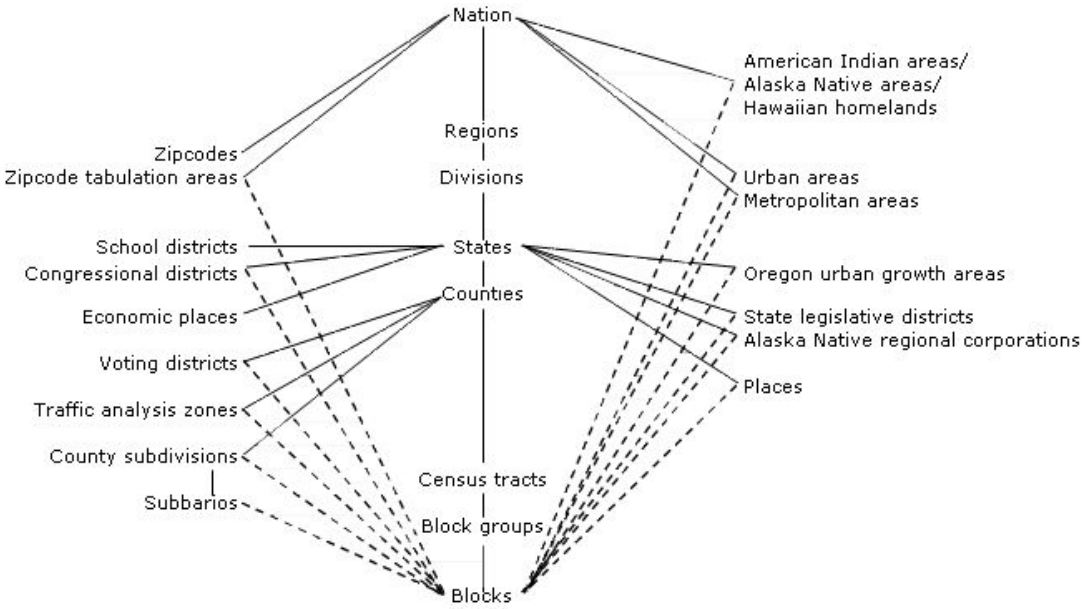

Sierra Madre
East Pasadena
Bradbury
San Marino
Citrus
North El Monte
Westwood
Los Angeles
South San Gabriel
Commerce
Marina del Rey
East La Mirada
Del Aire
East Compton
Alondra Park
Anaheim
Villa Park
Palos Verdes Estates
Signal Hill
Los Alamitos
Rossmoor
Long Beach
Rolling Hills

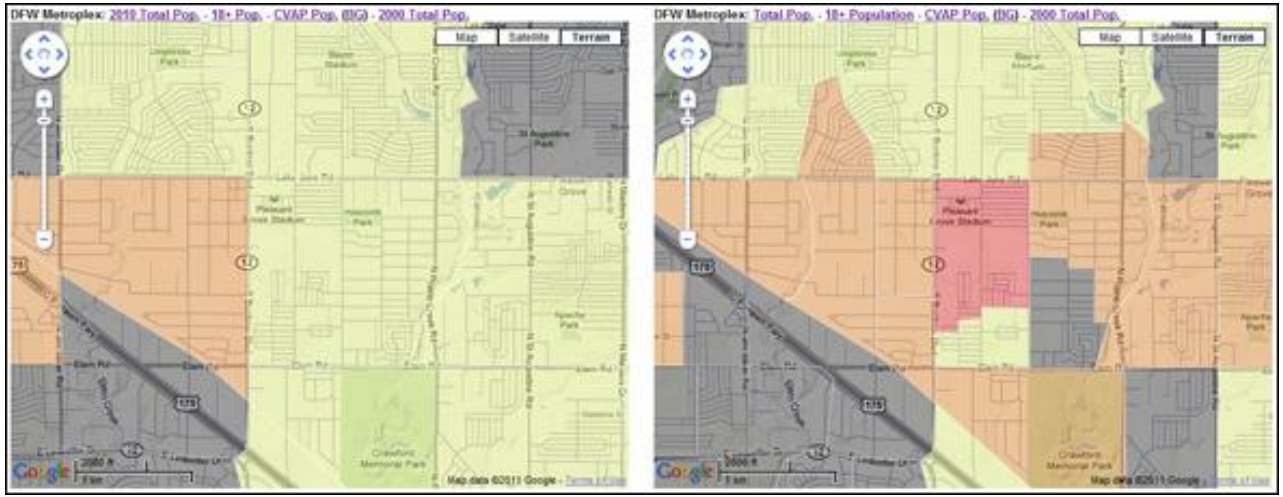
Census Tract Typology Classification

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 • Strong market • In TOD • Historic housing stock • Losing market rate affordable units • Employment center	**At risk of displacement** • Strong market • In TOD • Historic housing stock • Losing market rate affordable units • Employment center
Undergoing displacement • Already losing low income households, naturally affordable units, and in-migration of low income residents has declined • Stable or growing in size	**Undergoing displacement** • 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 • Gentrified between 1990 and 2000 or between 2000 and 2013 based on: o Neighborhood vulnerability o Demographic change o Real estate investment	**Advanced Exclusion** • Very low proportion of low income households • Very low in-migration of low income households

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?


Nation
American Indian areas/
Alaska Native areas/
Hawaiian homelands
Regions
Zipcodes
Zipcode tabulation areas
Divisions
Urban areas
Metropolitan areas
School districts
States
Congressional districts
Oregon urban growth areas
Counties
Economic places
State legislative districts
Alaska Native regional corporations
Voting districts
Places
Traffic analysis zones
County subdivisions
Census tracts
Subbarios
Block groups
Blocks


DFW Metroplex: 2010 Total Pop. - 18+ Pop. - CVAP Pop. (DG) - 2000 Total Pop.
Map
Satellite
Terrain
Map data ©2013 Google
DFW Metroplex: Total Pop. - 18+ Population - CVAP Pop. (DG) - 2000 Total Pop.
Map
Satellite
Terrain
Map data ©2011 Google

CARTO

SAVE
SAVE

COMMUNITY
NOT
COMMODITY

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.

Chelsea Goddard
Email: ssstereo@gmail.com