

# UCSD, GIS & You

Geographic Information Systems (GIS) @



UCSD Libraries

Here to help you explore our world...

# What GIS is...

- **G**eographic **I**nformation **S**ystem...or **S**cience
- Spatial mindset
  - Spatial analysis
  - Visualization in 2D, 3D, or 4D
- Implement with software tools i.e. ArcGIS

# See things in a new way...

Percentage of  
population  
below poverty  
level viewed as  
height

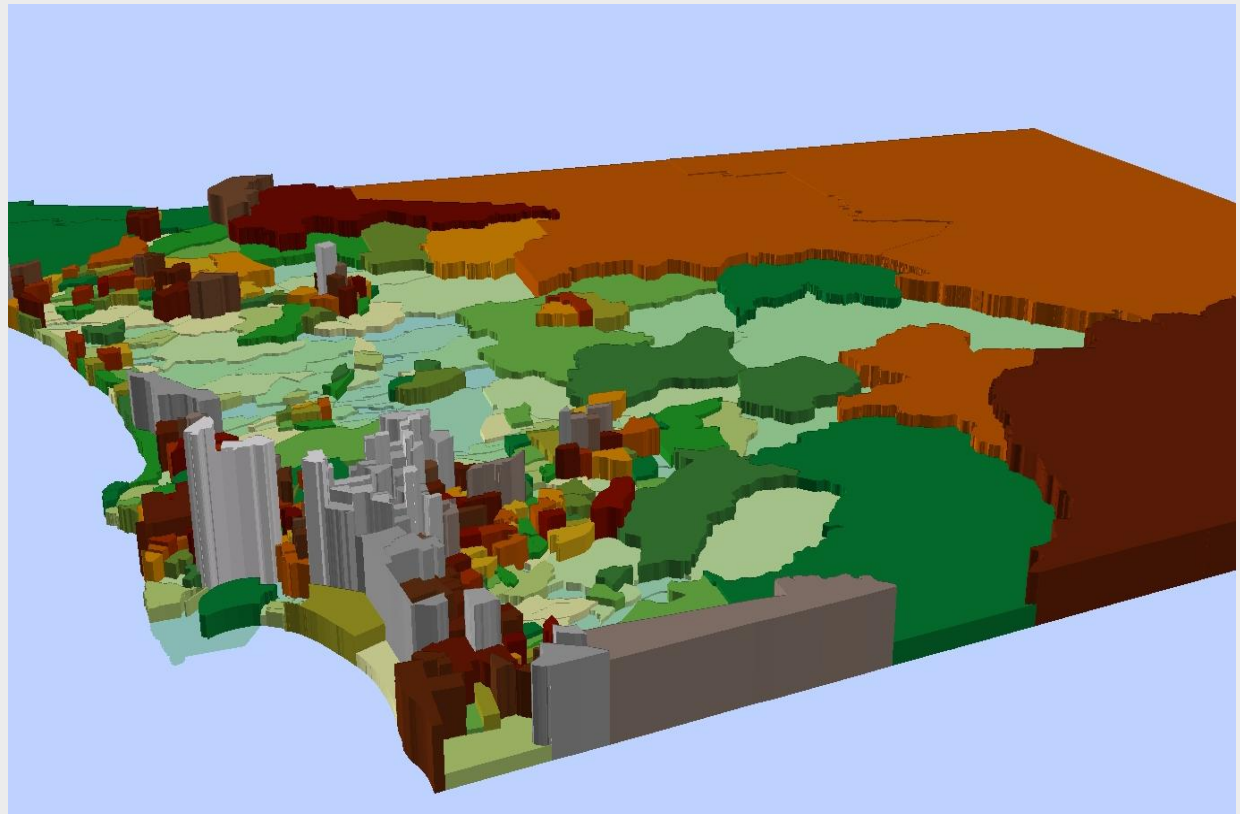


Image created by TELESIS with UCSD's Regional Workbench Consortium

# Representation of the 'real' world

- Layers with attributes
- Attributes can be almost anything
- Two main data types
  - Raster
  - Vector

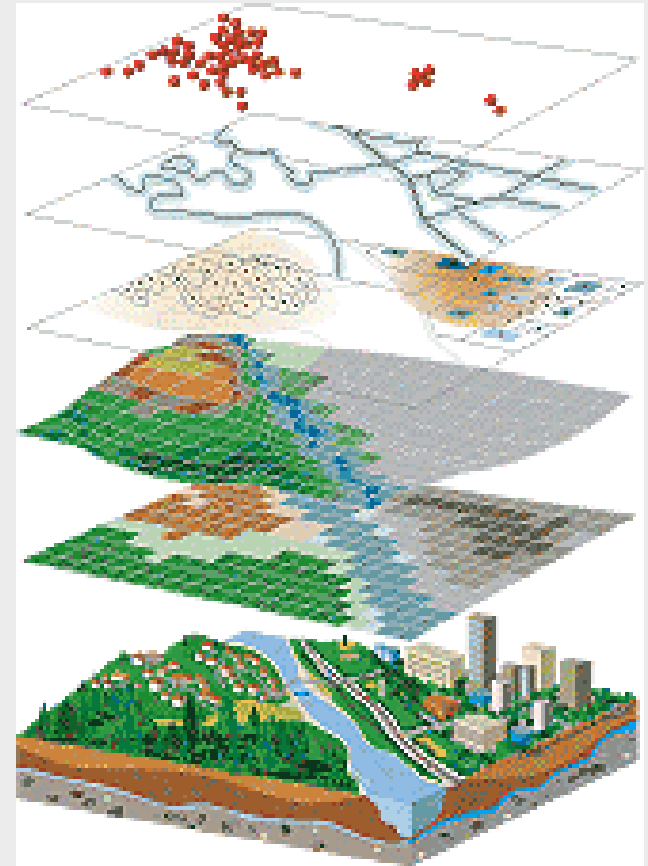


Image from ESRI

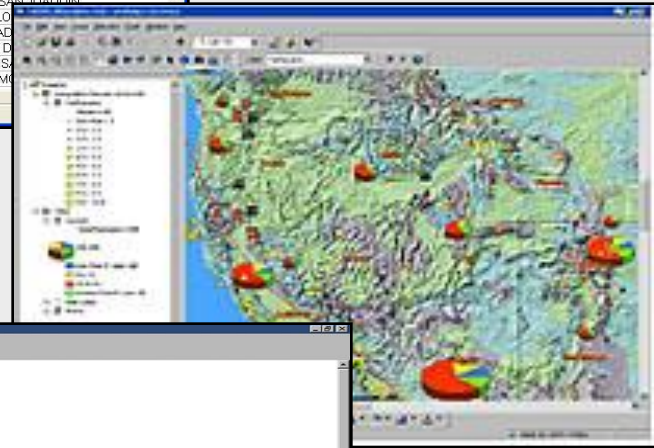


# Three 'views' of GIS

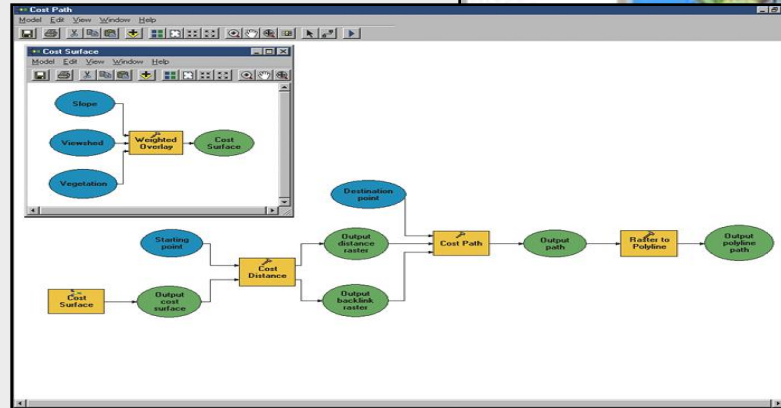
- Database

ID	ZIP_CODE	CITY	STATE	AREA_CODE	CITY_ALIAS_NAME
1	00501	HOLTSTVILLE	NY	516	HOLTSTVILLE
2	00501	HOLTSTVILLE	NY	516	IRS SERVICE CENTER
3	00544	HOLTSTVILLE	NY	516	HOLTSTVILLE
4	00544	HOLTSTVILLE	NY	516	IRS SERVICE CENTER
5	00601	ADJUNTAS	PR	787	ADJUNTAS
6	00601	ADJUNTAS	PR	787	JARD DE ADJUNTAS
7	00601	ADJUNTAS	PR	787	URB SAN JOAQUIN
8	00602	AGUADA	PR	787	EXT LO
9	00602	AGUADA	PR	787	AGUAD
10	00602	AGUADA	PR	787	ALTS D
11	00602	AGUADA	PR	787	URB IS
12	00602	AGUADA	PR	787	URB M
13	00602	AGUADA	PR	787	URB M

- Map



- Model



# It's up to you.

“The application of GIS is limited only by the imagination of those who use it.”

*Jack Dangermond, ESRI President & Founder*

Image credit to Nature Magazine's 2020 Future of Computing

# For more information...

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