

Welcome to

**Cartographic
Design + Presentation**

GEP 299/680

Lehman College

Fall 2018

First meeting outline

- Attendance
- Syllabus
- Lab rules
- Introductions
- Basic structure of every class
- Tips for success
- Course Website
- Intro lecture
- 10 minute break
- Set up/test accounts and folders
- Intro to the Help Forum
- Final thoughts/announcements
- Assignments/readings

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Basic structure of every class

Class begins promptly at 6 pm

- Critique, 30-40 minutes
- Lecture, 60 minutes
- Break, 10-15 minutes
- Tutorials/group activities, 30-40 minutes
- Open lab, until 9:30 pm

How to succeed in Carto Design + Presentation

- Complete/submit all coursework **on time**, submissions of assignments **past the due date** will not be accepted
- Explore the text! Yes that means reading...(yes, we will be talking about it in class)
- Development of genuine interest in the subject matter
- Ask questions/work the Help Forum
- Organization
- Open mindedness/willingness to fail

Course Website Overview

<https://cartodesign.commons.gc.cuny.edu/>

L1

Towards a visual literacy in GISc, the case for design thinking

What is graphic design?

What is graphic design?

Graphic design, also known as communication design, is the art and practice of planning and projecting ideas and experiences with visual and textual content. The form of the communication can be physical or virtual, and may include images, words, or graphic forms. The experience can take place in an instant or over a long period of time. The work can happen at any scale, from the design of a single postage stamp to a national postal signage system, or from a company's digital avatar to the sprawling and interlinked digital and physical content of an international newspaper. It can also be for any purpose, whether commercial, educational, cultural, or political.

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Why is graphic design important?

Why is graphic design important?

- Knowledge and Power
- Translation
- Communication
- Collective intelligence

Given what you now know about graphic design, and what you already know about GIS...why do you think the **former** is important to the **latter**?

What happens when mapmaking and graphic design are considered mutually exclusive concepts?

Thoughts?

Multiple passenger jet crashes in one week

July 17: Malaysia Airlines Flight 17. Shot down by missile over Ukraine.

July 24: Air Algerie Flight 5017 disappears from radar over Mali.

July 23: TransAsia Airways Flight 222 crashes while landing at Taiwan's Magong Airport

Source: Times reporting

Raoul Rañoa / @latimesgraphics

The LA Times can do better :/

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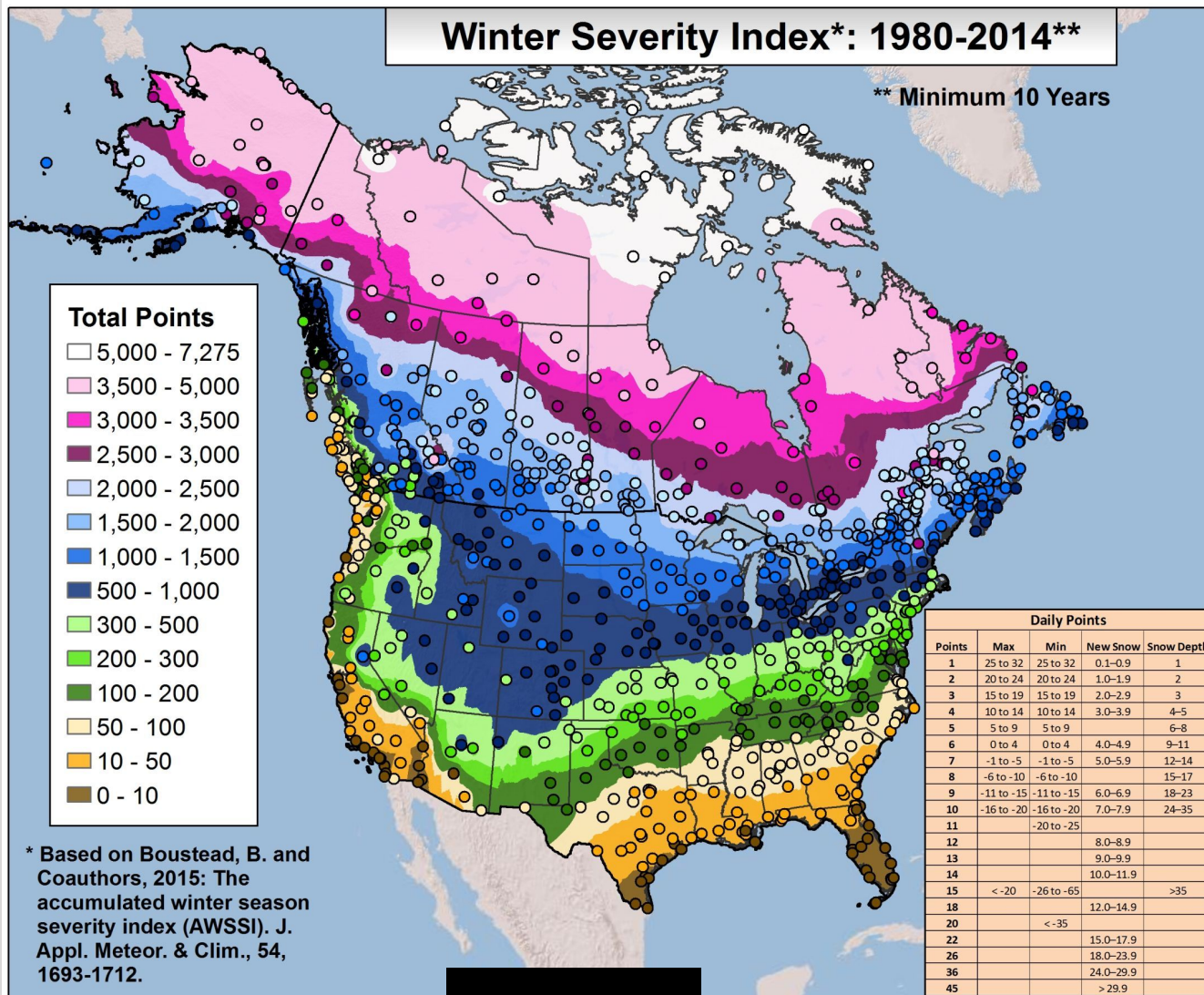
According to Fox News, Egypt has relocated



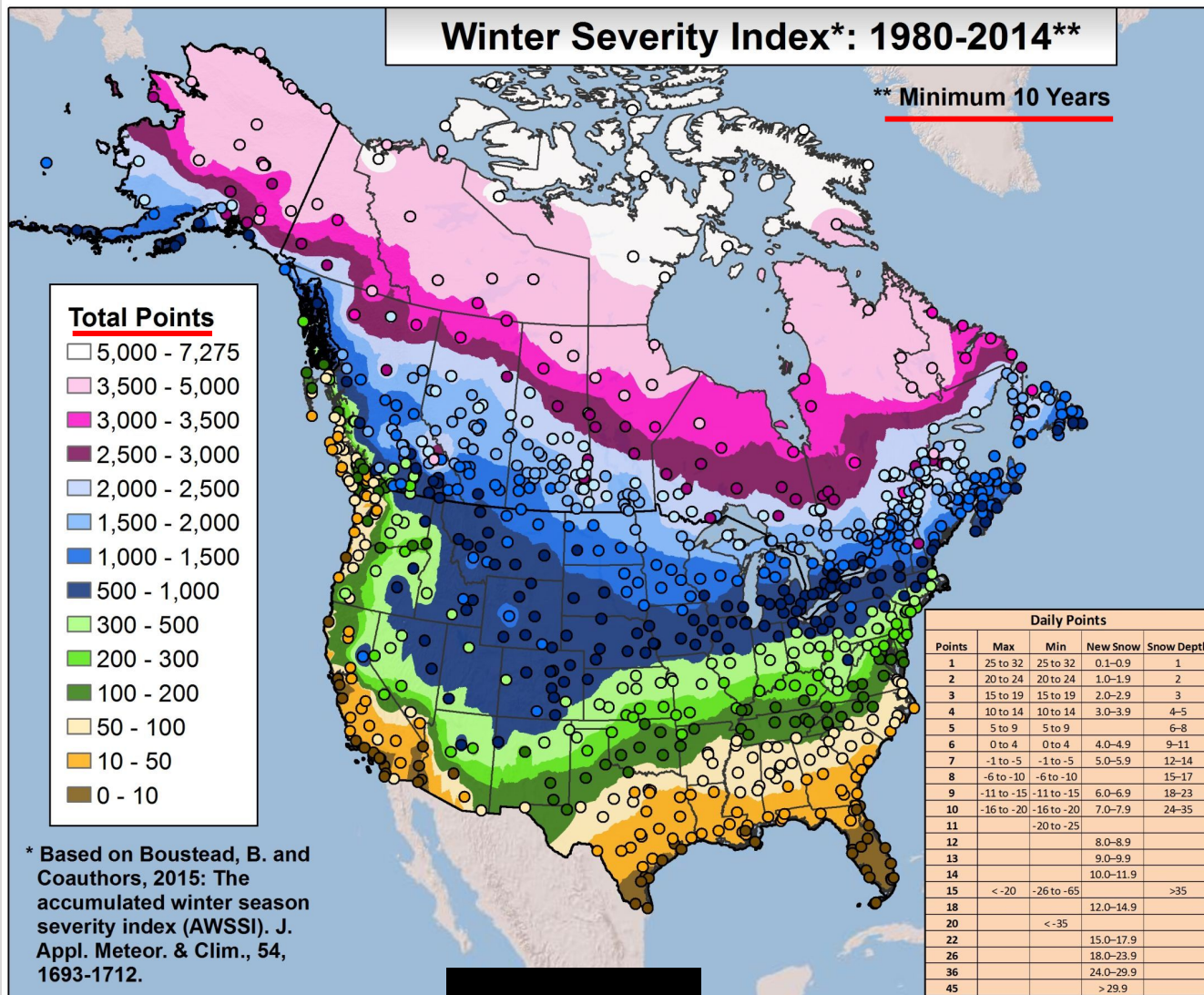
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Someone explain this map to me



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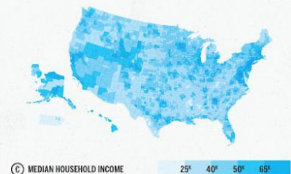
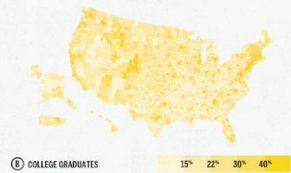
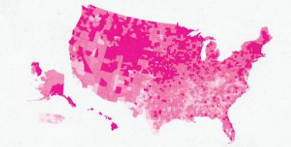


← ???

Is this map good? Y or N?

READING, WRITING, AND EARNING MONEY

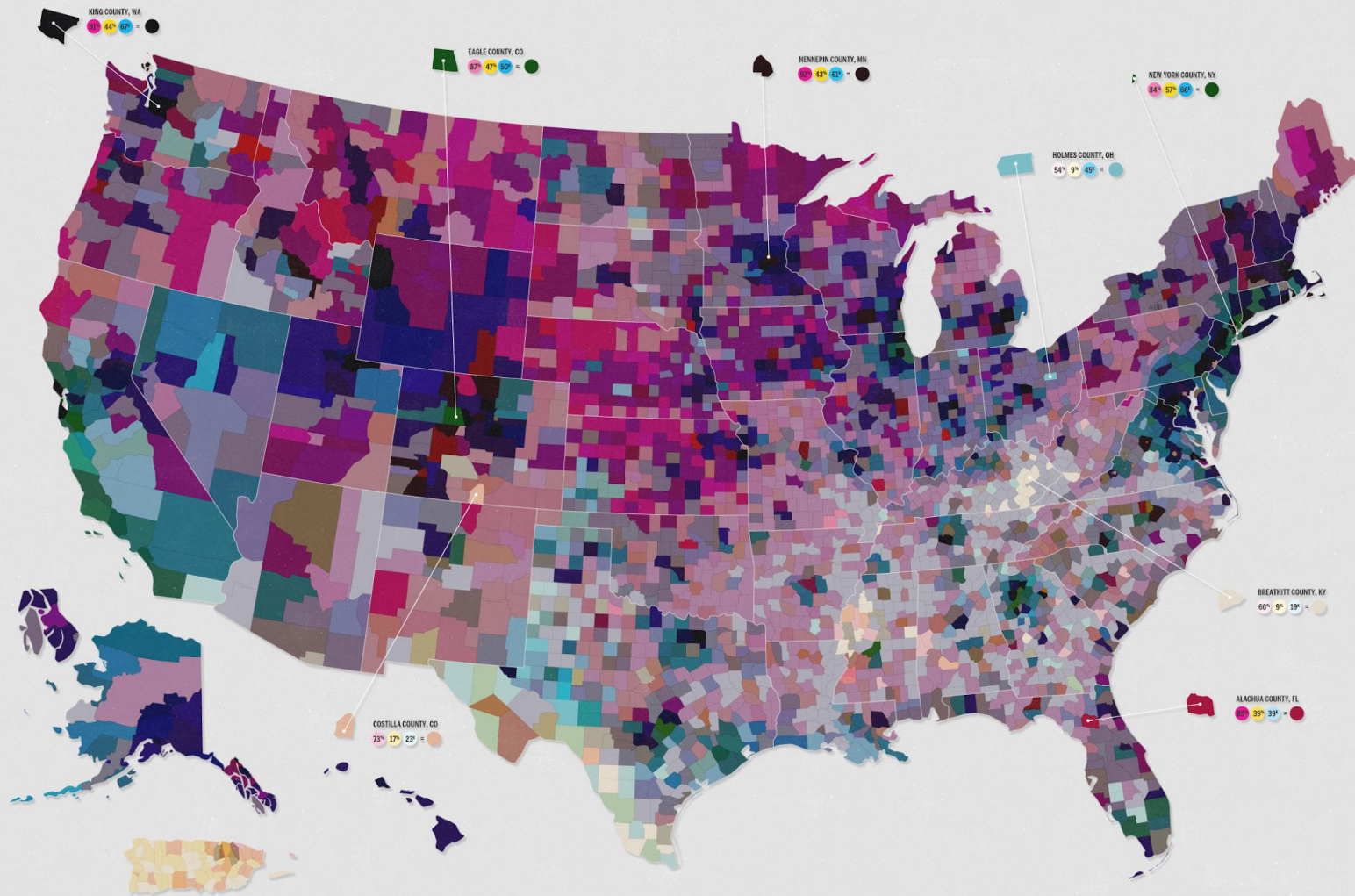
The latest data from the U.S. Census's American Community Survey paints a fascinating picture of the United States at the county level. We've looked at the educational achievement and the median income of the entire nation, to see where people are going to school, where they're earning money, and if there is any correlation.



The map at right is a product of overlaying the three sets of data. The variation in hue and value has been produced from the data shown above. In general, darker counties represent a more educated, better paid population while lighter areas represent communities with fewer graduates and lower incomes.



A collaboration between GOOD and Gregory Hubcock
SOURCE: US Census



Is this map good?
Y or N?



JACKSON
SCHOOL OF GEOSCIENCES

This publication was co-funded by the Jackson School of Geosciences.



Natural Resources Conservation Service
For more detailed soil information go to:
<http://websoilsurvey.nrcs.usda.gov>

This map was originally produced by the
USDA - NRCS M09 Soil Survey Office;
Temple, TX, September 20, 2006.

Soil lines are generalized from the
NRCS STATSGO database 2004 NAD 83,
USA Albers Equal Area Conic USGS.

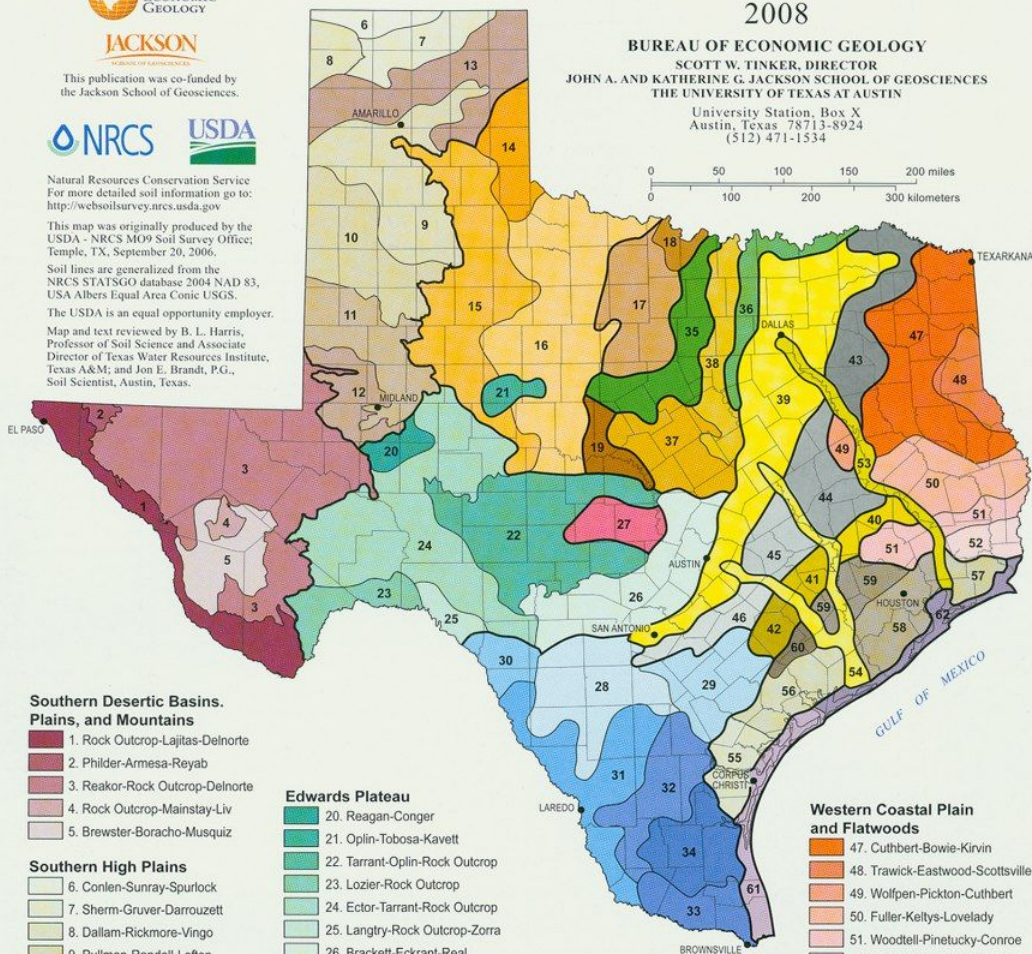
The USDA is an equal opportunity employer.

Map and text reviewed by B. L. Harris,
Professor of Soil Science and Associate
Director of Texas Water Resources Institute,
Texas A&M; and Jon E. Brandt, P.G.,
Soil Scientist, Austin, Texas.

GENERAL SOIL MAP OF TEXAS

2008

BUREAU OF ECONOMIC GEOLOGY
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JOHN A. AND KATHERINE G. JACKSON SCHOOL OF GEOSCIENCES
THE UNIVERSITY OF TEXAS AT AUSTIN
University Station, Box X
Austin, Texas 78713-8924
(512) 471-1534



Southern Desertic Basins, Plains, and Mountains

- 1. Rock Outcrop-Lajitas-Delnorte
- 2. Philder-Arnesa-Reyab
- 3. Reakor-Rock Outcrop-Delnorte
- 4. Rock Outcrop-Mainstay-Liv
- 5. Brewster-Boracho-Musquiz

Southern High Plains

- 6. Conlen-Sunray-Spurlock
- 7. Sherm-Gruver-Darrouzett
- 8. Dallam-Rickmore-Vingo
- 9. Pullman-Randall-Lofton
- 10. Amarillo-Acuff-Olton
- 11. Patricia-Brownfield-Nutivoli
- 12. Jalmar-Penwell-Triomas
- 13. Mobeetie-Berda-Veal

Central Rolling Red Plains

- 14. Miles-Springer-Delwin
- 15. Miles-Delwin-Woodward
- 16. Tillman-Vernon-Hollister

Texas North Central Prairies

- 17. Bluegrove-Bontli-Truce
- 18. Stoneburg-Anocon-Kirkland
- 19. Bonti-Throck-Callahan

Edwards Plateau

- 20. Reagan-Conger
- 21. Oplin-Tobosa-Kavett
- 22. Tarrant-Oplin-Rock Outcrop
- 23. Lozier-Rock Outcrop
- 24. Ector-Tarrant-Rock Outcrop
- 25. Langtry-Rock Outcrop-Zorra
- 26. Brackett-Eckrant-Real

Texas Central Basin

- 27. Keese-Ligon-Rock Outcrop

Rio Grande Plain

- 28. Duval-Uvalde-Pryor
- 29. Olmos-Weesatche-Samosa
- 30. Olmos-Langtry-Elindio
- 31. Montell-Catarina-Maverick
- 32. Delmita-Permitas-Randado
- 33. McAllen-Hidalgo-Brennan
- 34. Nueces-Sarita-Fallurrias

Cross Timbers

- 35. Windthorst-Chaney-Duffau
- 36. Gasil-Crosstell-Callisburg

Grand Prairie

- 37. Brackett-Purves-Real
- 38. Aledo-Sanger-Bolar

Texas Blackland Prairie

- 39. Houston Black-Heiden-Wilson
- 40. Frelsburg-Latium-Crockett
- 41. Frelsburg-Bleiberville-Carbengle
- 42. Frelsburg-Hallettsville

Texas Claypan Area

- 43. Woodtell-Crockett
- 44. Edge-Tabor-Silstid
- 45. Edge-Padina
- 46. Straber-Padina-Crockett

Western Coastal Plain and Flatwoods

- 47. Culbert-Bowie-Kirvin
- 48. Trawick-Eastwood-Scottsville
- 49. Wolfpen-Pickton-Cuthbert
- 50. Fuller-Keltys-Lovelady
- 51. Woodtell-Pinetucky-Conroe
- 52. Otanya-Kirbyville-Evadale

Flood Plains

- 53. Tinn-Trinity-Kaufman
- 54. Pledger-Brazoria-Norwood

Gulf Coast Prairie

- 55. Victoria-Orelia-Edroy
- 56. Laewest-Dacosta-Edna
- 57. Beaumont-League-Labelle
- 58. Lake Charles-Bernard-Edna
- 59. Katy-Wockley-Gessner
- 60. Telfemer-Cieno-Nada

Gulf Coast Saline Prairie

- 61. Mustang-Daggerhill-Barrada
- 62. Harris-Surfside-Francitas

What is **design thinking**?

What is design thinking?

Design thinking is a method for practical, creative resolution of problems. It is a form of solution-based thinking with the intent of producing a constructive future result

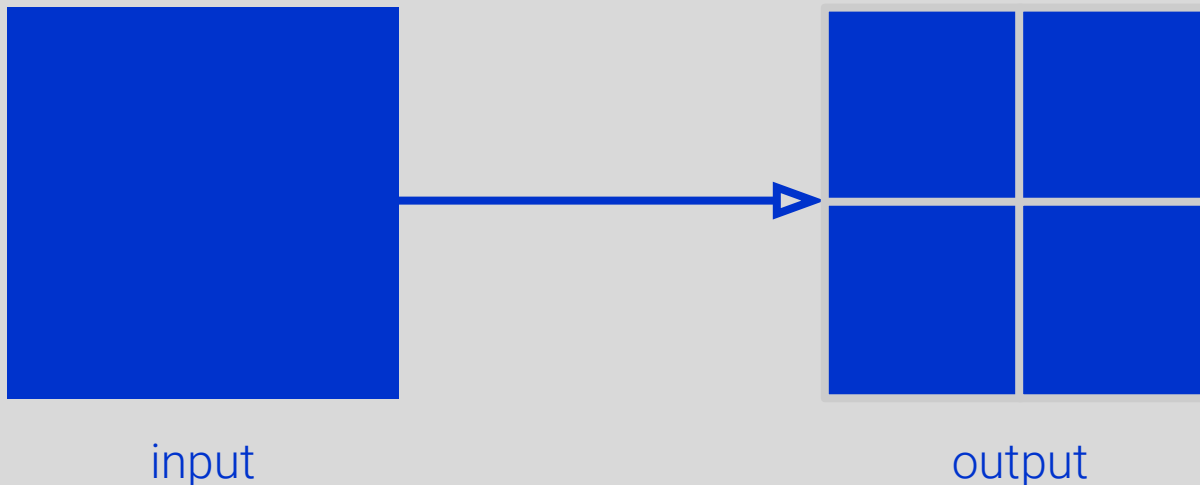
OR, more simply

...refers to the creative strategies designers utilize during design processes

Conceptual relations: Analysis vs Synthesis

From the Greek, meaning, to loosen up, and to put together respectively...

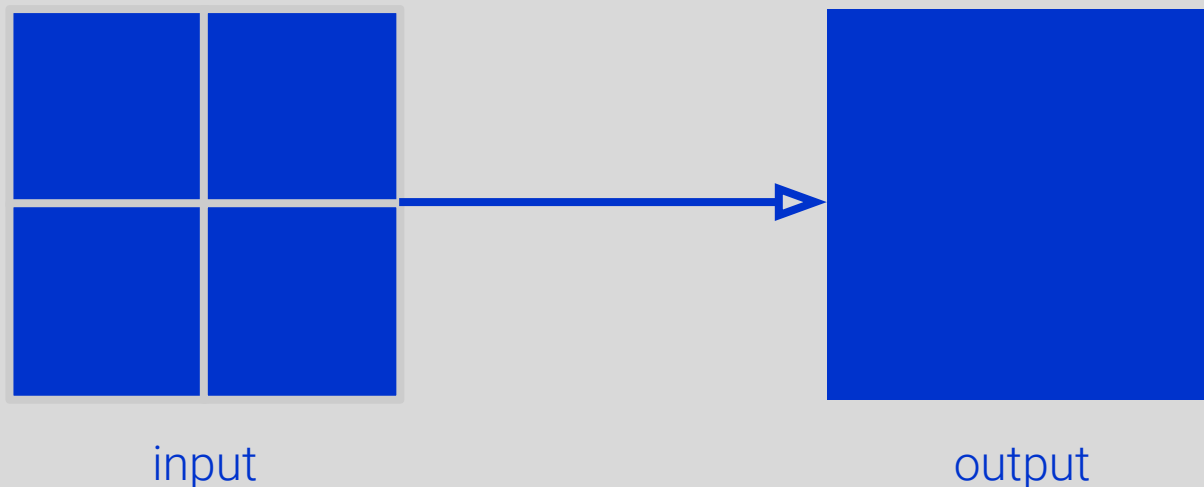
- *Analysis* is the procedure by which we break down an intellectual or substantial whole into parts or components



Conceptual relations: Analysis vs Synthesis

From the Greek, meaning, to loosen up, and to put together respectively...

- *Synthesis* is the procedural inverse of analysis, to combine separate elements or components in order to form a coherent whole



Conceptual relations, ways of thinking: **Divergent** vs **Convergent**

These modes of thought are both part and parcel to the design thinking process

Design thinking encourages divergent thinking to ideate many solutions (possible or impossible) and then uses convergent thinking to identify and realize the best resolution

Design thinking steps

- Define
- Empathize
- Ideate
- Prototype
- Test

Design thinking steps

- **Define**
 - Identify the goals, what do you wish to convey
- **Empathize**
 - Put yourself in the user's position
- **Ideate**
 - Brainstorm the best ways in which to achieve your goals
- **Prototype**
 - Build a few different examples
- **Test**
 - Self explanatory, does it work?

Design thinking steps

Within these steps, problems can be framed, the right questions can be asked, more ideas can be created, and the best answers can be chosen

The steps are **not** linear by nature, and can occur simultaneously and/or be repeated during various phases of the design process

A paradigmatic example

Which is a better question given what you now know about design thinking?

- How might you design a better pair of scissors?
- How might you design a better way of cutting paper?

Why should mapmakers/GIS professionals engage in design thinking?

10-15 minute break :)

Setting up accounts

- Make sure you have a student folder on the Lehman network (n-drive)
- You will also be enrolled in Piazza, look for the email and login to set up your account

Final thoughts/announcements

- **GISc bootcamp**, Tuesday 09/04/2018 from 3 to 5pm, Gillet Hall rm 322...*email forthcoming*

What's due next week?

- Readings
 - Crampton, *What is Critique?*
 - Buisseret, *Text and contexts*
 - Robinson, *Cartography as visual technique*
- Assignment 1 (optional) **due by 12pm Tuesday 9/04**
- Also please familiarize yourself with the Help forum
- Also also, please bring headphones with you to class from now on as we will be engaging, independently, in video tutorials

End