GEOG 1HA3 Midterm Review

Space – Areal Extent

1) Absolute Space- Real, areal relation between things on earth, used for maps, a certain size, definable boundaries, factual, latitude and longitude maps. The study of regions and spatial analysis.
2) Relative Space- Open to interpretation, perceptual, "crowed space" "Spacious space" , and opinion. Subject to continuous change. Topological maps- the distance between steps are not important (train maps, bus routes) they are not to scale, relative positions to one stop and another.

Euclidean geometry-sees space as a framework, geographic facts are located and geographic events occur
Riemann geometry (spherical surface, earth) – the shortest distance between two locations is a curved line not straight.
Spatial separation-geographers with primarily humanistic perspective, believe that human geography based on spatial analysis focuses on space alone as an explanation of human behaviors.

Location – Refers to a particular position in space

1) Absolute (mathematical) location – Using Latitude and Longitude to find an absolute precise location, using coordinates. Mathematical precise statement.
2) Relative location- "this location is close to that location" , perceptual, depends on the person, location of one place relative to another
3) Nominal (Toponym) location – A place name, the location "Mcmaster" room "MDCL 1305", a significant place has a Toponym

Conflict in Place Names – They help provide location understanding, "On a British map, the city is called Londonderry, on a Irish map the city is called Derry
Site- local characteristics of a location
Situation-locations relative to other locations
(p.53-figures)

Place – Particular location with a particular significance or meaning either with one person or collectively, it has an identity
Residence- Significant to the people who live there and alumni
Home- Significant to family and friends of family
Twin towers
Location + Cultural/human meaning = Place
Sense of Place- Personal significant attachment
Drive by childhood home, reflection, memories
Even location that you have not been before, leaning tower of pizza, gondolas, Niagara falls- there is a sense of place
Sacred space- landscapes that are particularly esteemed by an individual or a group, usually for a religion purpous but also for political or other comparable reasons (churches, temples)

Local+reginal characteristics of culture
different sense of place, sacred places- where the sense of place is strong (site of a miracle)

Placelessness- Homogeneous+ standardization
"East side Mario's" – Artificial sense of place (little Italy)
Wal-Mart, McDonalds all organized the same
Suburbs, have little place associated with them because they are all similar
occupied by humans but have no special quality (tourist landscapes, urban commercial strips)
Topophelia- positive feelings that links humans to a particular environment
Topophobia- dislike of a landscape that may prompt feelings of fear, anxiety, suffering

These concepts add valuable refinement not only to the more general concept of location. Places as emotional anchors for much human activity.

Region – A part of the earth's surface that displays internal homogeneity and is relatively distinct. Different, hetero, different form from surroundings areas according to some criteria
A device for selecting and studying areal groupings of the complex phenomena found on the earth. Any segment or portion of the earth is a region if it is homogeneous in terms of such an areal grouping.
Regionalization-dividing large areas into regions, process of classification, and each specific location is assigned a region.
Categorizing all areas of the world into regions based on criteria.

Physical- North American continent similarities with climate, precipitation, areas have differences but largely speaking consistent. Similarities of climate
Human-people speaking largely(generally) French one area or English in another. Applies to religion or other characteristics, like how they say pop words
"In the boundaries of this set area there's a lot of this but not this"

Formal region- area with one or more traits in common (area of German speaking people)- delimitation central to the chronological approach
Functional region- area with locations related either to each other or to a specific location. (sales distribution area of a city newspaper)- delimitation important aspect of spatial analysis
Vernacular region-regions perceived to exist by people within or outside them (Bible belt- identifiable as an area with strong commitment to various conservative protestant religions.)- crucial to understanding of human landscape
Spatial scale perspective matters- district of the city Hamilton all the details become insignificant when you change the district to Ontario and then Canada.

Landscape

Regions are often defined by landscape
Visible features associated with regions
Natural- mountain ranges, flat, plain (physical)
Human- when the landscape is modified by humans it becomes a cultural landscape (growing crops, suburban area) little evidence of physical landscape

Cultural- the landscape that has been modified by humans, different cultural groups have imprinted themselves in many different ways on landscapes there for there are many different landscapes
Ex. Southern Ontario- Suburban and rural, we have modified the physical landscape, rural- a lot of rectangular straight fileds
suburb- highways with suburbs on either side
this is how our culture group modified the natural environment based on our conditions and restraints, this is different how Ireland or south Africa modified there landscape, it could be suttle or dramatic, to accommodate for there needs.

Distance – The amount of space between 2 or more locations

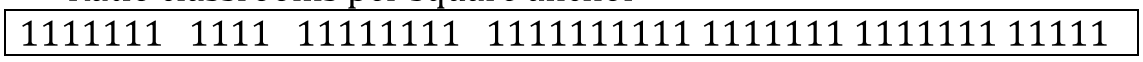
1) Absolute/physical distance- km, ft., miles, customary/precise measurements,
2) Travel Distance- perceptual, to Toronto 1hour, 8 hours walking, related to the mode of movement, isochrones-lines joining points of equal time distance from a single location
3) Economic/communication distance- flight cost, 4$ to phone ,there's is usually a cost in traveling from on place to another-cost incurred to overcome physical distance
4) Psychological distance (proximities) - perceptual, how long it feels to travel to a distance, walking from here to there, fast and slow
   Study of social distances as defined by individuals in a particular location
   Proximities- study of personal space, invisible boundaries that protect and divide in sections each individual.

Friction of distance- time and cost are involved in overcoming distance, a measure of the restraining effect of distance on human movement
Distance Decays- the declining intensity of any patterns or process with increasing distance from a given location
Accessibility- relative ease with which one location can be reached from other locations therefor indicating opportunity for contact and interaction
Interaction- acts of movement, trading, or any other form of communications. Relationships between locations
Agglomeration- spatial groupings of humans or human activities to minimize the distance between them

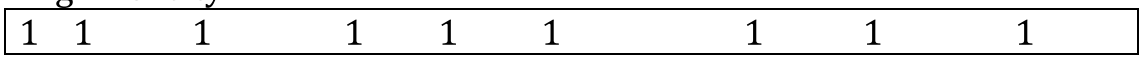
Deglomeration – spatial separation of humans or human activity to maximize the distance between them
Cognitive distance (psychology distance) - Spatial cognition is a matter of individuals capacity to be précis in determining locations and distances every person has a different interpretation of reality (physical distances)

Distribution- of geographic phenomena a distance organization
The distribution of things such as churches or towns can be determined by referencing the distance between them and other geographic facts.

1) Density- how many geographic phenomena's are there (places of worship) (classes) – how big is the campus, how big is the space. Ratio classrooms per square anchor

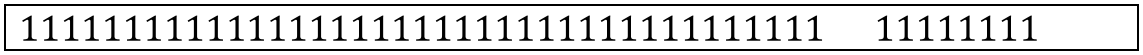


High Density

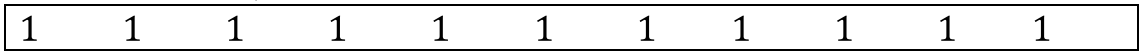


Low Density

2) Concentration/Dispersion- How something is spread over
C- Space between is small D- Far apart "Scattered"
(Distribution of Chinese restaurants in Toronto- High concentration)
(University's in southern Ontario- Dispersed)

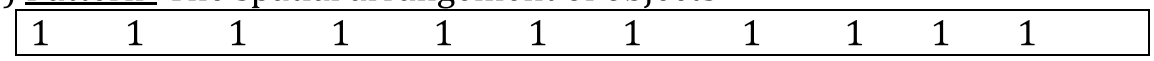


Italian Restaurants, specialty retail (jewelers, shoe store) – High Concentration ,tend to locate near on another

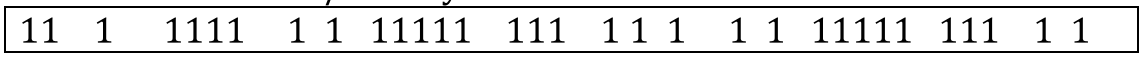


Suburban shopping malls- more distance between them to provide services to surrounding populations, also in response to competition (hospitals, community centers)

3) Pattern- The spatial arrangement of objects



Houses- uniformed/orderly



Randomly arranged

-Subway line is linear for stops.
-Map of Manitoba
Density- how many urban places-96
Arial extent- size of Manitoba square km
-The density changes from above and under the line, *see map, smaller space but more urban places- under the line
-Concentration/Dispersed – Dispersed= above the line, clustered below the line- depending what part of the province
-Pattern- there are linear patterns- trans Canada highway has urban places along it, as well as along a river

Key understanding of the production and understanding of maps

1) Scale – Spatial, temporal, social
Tells the reader what is that we are looking at-the spatial extent, the relationship between the real world and an area on the map
No maps are exactly scaled- all scaled down of the world either a little or a lot .A scale can be expressed as a ratio (1/50000) or as a fraction (1-50000). Different scales can generate different answers.
Use Spatial scale in 3 ways
Spatial scale- 1) scale is the ratio of distance on the map and on the ground, world maps-small scale ,region maps-intermediate scale, local area maps- large scale
*maps of large areas are at small scale and maps of small areas are at large scale, smaller scale depicts larger area of the earths surface therefor little detail, large scale maps smaller area of earths surface, therefor more detail
2) the location in a given set are clustered or dispersed – spatial scale needs to be identified weather we make statements about density.
Ex. Canada- single statistique can make a huge variation, average population is 3.25 per km, but for an urban density it could be 10,000 per km
3) spatial scale refers to the specific identification of the area, the scale does relate to the purpose of the research

This scale is favored with local ares (shopping centers ,villages, local agriculture), much humanistic research concerned as it often is with individuals.
Regional scale-larger areas (American South, Australia outback)
National Scale- single country large or small

Temporal scale- questions concerning the evolution of landscape, temporal perspective is necessary

2) Perspective- are the told that help orient the map (north arrow, compass hose)
Ex. The arrow can be a clue as to what the location is, showing a map of Hamilton with the water way at the north, which is not where the water is situated in Hamilton therefor the map is Bermuda.
Ex. Antipocentric map-"upside down map"
Not uncommonly produced by Australians who wanted to be seen at the top of the world not the bottom.

3) projection- Deals with the challenges of turning a 3 dimensional globe into 2 dimensional, taking the crust of the earth and laying it out flat
4) Types In the description and explanation of spatial data geographers often use maps.
There are different kinds of data therefor-different kinds of maps to accurately show the data and solve the spatial problems.
Ex. Accurate representation of spatial data – "topographic" showing the world accurately (google maps)
Ex. Dot map- find and uncover spatial relationships and distribution (clustered or dispersed) each dot represents one occurrence of the phenomena being mapped
In London England, they mapped out in dots the deaths from the color outbreak, there was a cluster in one area , therefor they were able to it was because of the water these people were drinking in one area , they fixed the water and the deaths stopped.
Ex. Choropleth maps – Using the United States, the population density in certain sates would be height or lower, color representation that is proportional to the density of the phenomena in each of the defined areal units

Ex. Isopleth maps- consists of series of lines liking points having the same value maps with common values (temperature), to demonstrate areas that have a characteristic in common. (equal transport cost ,equal time)
Ex. Cartograms – Intentionally distort space to demonstrate particular attributes, USA map of people voting, "looks like the red side won, more people are voting for republicans" – doesn't demonstrate that not all states have the same number of votes, the vote was actually very close. They could also enlarge states to show they had more impact and make smaller states smaller, it is all distorted.

Diffusion – Things that spread over space and time (disease- H1N1,bird flu,) (Technology- released to particular places spread ,to the amount of people who have it now, next week or never)
Relocation diffusion- particular geographic phenomenon
How things spread over time through movement/physically
Disease- coughing on someone, spreading germs through physical contact, technology- spread through movement
Related to immigration- when people immigrate to a different country they bring with them their culture, religion, language, food and music taste. They relocate their cultural characteristics into another part of the world, therefor the landscape will change with the people (churches, stores, restaurants). The immigrant come and change business from an English pub to Italian restaurant.
Neighborhood effect- diffusion is distance biased, phenomena spreads first to individuals or groups nearest its place of origin

Expansion Diffusion- Hiarchial- things are spread in a hierarchy way (people in a higher power get the ideas first and then it goes down the chain) Technology- urban hierarchy such as New york or LA will get the newest technology first then following will make its way down to Chicago, the important places receive it first
Contagious diffusion- disease and gossipe
Spatial diffusion of technology (s-shaped curve)- what the percentage of people ha know about or have the technology in a certain time- as time moves forward more people know or have the new technology, increases rapidly through the population

Perception- process of which humans acquire information about physical and social environments.
Recognize that all humans relate not to some real physical or social environment but rather to their perception of that environment-varies with knowledge
We view the world and what happens based on experiences and how we make sense of things, its important how we perceive things. (A class exiting or dull)
Mental map- images of places or people in our head, Individual perception on how the real world is, imperfect knowledge of the small amounts of information we get
Perception drives our behavior not reality, people make choices based on their perception, important with our engagement of the world around us.
Mental maps demonstrate that humans have varying perceptions of environments – explain population movement in less developed world – continuous movement to the south or to urban areas out of rural

Discourse- speech, a way of communicating in speech or in writing serves to identify the person communicating's as a member of a particular group
Ex. Space ,location ,place-discourse of human geography- serves to identify those who use that vocabulary as the group of human geographers

Fundamental consequence of globalization is that it is resulting in our complex and varied human worlds becoming unevenly more like a single world. The idea that the world is becoming homogenized- economically, politically, culturally. Ever increasing connectedness of places and peoples

Techniques used to display, collect and analyze data.
-Cartography – closely related to analysis - science of map-making, maps are efficient means of portraying and communication spatial data
-Computer Assisted Cartography- digital mapping, able to produce various versions of the mapped data to create the best one- they facilitate decision making, able to incorporate new and revised data.
-Geographic information systems- computer based tool, combines several functions: storage, display, analysis and mapping of spatially

referenced data.
Vector approach-describes spatial data as a series of discreet objects, points are described according to distance along 2 axes and lines are described by the shortest distance between 2 points and areas are described by sets of lines
Raster approach-divides the area into numerous small cells and pixel and describes the content of each cell
Used- Biologist analyze the effect of wildlife of changing land-use patterns, geologist search for mineral deposits, market analysis determine trade areas

GIS achieves a whole new range of mapping and analytic capabilities- additional ways of handling spatial data.
Human geographers collect and analyze data using a broad range of qualitative methods refers to the research with a focus on the attitudes, behaviors and personal observations of human subjects.
Quantities methods- a set of tools to collect and analyze data to achieve a statistical description and scientific explanation of the subject being studied. (sampling, models, statistical testing)

MAPS

-boundaries for countries, roads ,Information is communicated on maps, important tools for spatial information, we use maps to make sense and analyze spatial information.

Maps are socially constructed, produced by individuals/organizations and it reflects what these people want to tell you through there map.
Maps can tell or obscure all different types story's/information
ex. The Argentina stamp is a map of Argentina, though they include Antarctica to try and perceive that they are a bigger country and own Antarctica even though they do not, Argentina is trying to portray as message.
Cartographers can tell any lies with maps with depiction of a map. Like using small scale map showing large sections- a lot of detail is not shown a lot of information is excluded, they decide what is important enough to include in the map. They decide what to use to simplify things such as lines for roads.

Maps solve spatial problems (how do I get from here to here)

ex. Cave maps- way to reveal and give direction to the most fertile hunting grounds.
ex. The navigational map of the pacific islands, made out of fibers of palm trees, leaves and sea shells, they were able to navigate from island to island, it allowed them to navigate to different locations.

Maps represent the state of current knowledge, if its unknown then it is left blank, which reflects what they knew of France, symbolized there current state of knowledge. or it reflected the fear and anxiety explorers had such as demonstrating where the sea creatures where and the catabolism.
Public school in British empires all had maps of the countries in the world all apart of the British empire, demonstrating they were the most powerful empire.

LAB- MODULE

Map- any concrete or abstract image of the distributions and features that occur on or near the surface of the earth or other celestial bodies
Analytical purposes-analyzing trait patterns between countries, summarizing statistical data and predicting potential issues regarding climate change
GIS- allows the users to make maps, and analyze the data used to create the map and to look for patterns

Topographic map- uses contour lines to represent high or elevation of geographical features.
Characteristics- put multiple maps together to cover a large area, they show the surface of the earth in great detail, provide elevation information
Contain a lot of information on a particular region: physical features, vegetation, human/cultural characteristics through the use of colors, symbols, lines
Information on a topographic map- publishing information, where, when and by whom the map was published ,legend, scale, title elevation conversion scale, statement of contour interval
Black-man-made, Pink- urban area, White- undeveloped, brown-elevation

Chapter 5

The population will reach 8.1 billion people by 2025 and 9.6 billion by 2050 and stable 10 billion by 2200. This substantial growth is presumed to happen and is happening in less developed countries where it is least capable to support, while developed countries are remaining the same through 2050.
Most populated country China-1.35 billion (20%), India 1.2 billion this makes up 1/3 of our global population.
Canada's Population – 35 million (35th out of 200 countries)
Demography- the science that studies the size and makeup of a population according to variables such as age and sex. The study of the population.

It took 12,000 yrs for our population to hit 2 billion, 50 yrs to hit 4 billion and 25 yrs to 6 billion – huge increase in population
Increasing 75 million per year
-Where do these people live? (why there)
-What causes this? Why are more people living here and less there?(why there?)
- What are the consequences of the distribution, the implications? (why care?)

Population Geography- Spatial distributional (verdict of death and birth rates) adding spartial perception.
Population geographers concern: growth or decline of a population over time, and the spatial differential growth or decline of a population.
Ex. Out of 100 births that happen- more happen in less developed countries then wealthier countries.

The causes and consequences of population change
- the role of the government, either limiting population growth such as one child per family in china or trying to increase the population with baby bonuses (Canada, Quebec)
Connection to the access of ressources (food,water,health care) , the dimension
ex. Canada-lots
What factors have contributed to this population increase/decrese?

The significant population change associated with the first agricultural revolution, started in modern day Iraq,turkey and spread to china, India, Egypt.
- there was a development of new forms of technology (tools-plow) , people could plant plants where and when they wanted- growing food therefor an increase in food production therefor had enough to sell, so people could buy the food instaed of grow it themselves, therefor people could spealize in other fields of work. (tool making) , there was an increase in labour, and permanent settlement, we can now support a larger population therefor population grows

- more significant- had more impact on agriculture (18^{th}-19^{th} century) the industrial revolution (2^{nd} agriculture revolution) . It was the ability to increase food production(new forms of fertility) therefor increasing the capacity to support the population. Decline in death rates, people would die later in life. Increase in Wealth- the developed countries went through this industrial revolution. Other less developed countries are beginning to go through this process.

The 1^{st} agriculture revolution was not able to deal with disease so although it was able to support larger population, disease would wipe out much of its progress.
The industrial revolution were able to controle impacts of disease.
Fewer imapcts= larger population increase.

Distribution & Density
Distribution is the spatial arrangement of geographic phenomena
- The disparadory between Asia and the rest of the world – asia has a major population (60%), Europe has a concentrational population
Africa is the only countrie projected to change in population increase other countries such as Europe and asia are projected to decline slightly.
Clustered vs dispersed
Clustered: china, japan, eastern aisia, western Europe
Dispersed: Saharan desert, Australia, north America,

Population Density
- how many countries in one area? How many people in one place?

- Ex. Canada's spatial territory is large, high population- the density 3.1 Person per km) – low density.
Variation of southern Ontario/Quebec- population density is high
Northern Canada- very low
Ex. 1.0 in Bangladash as it is a small country with a large population.

Physical factors- some areas are more suited for humans then others, ex. Desert, tundra, northern parts are not suitable though the medeterianian or souther California are ideal places.
Physical dimensions- Places that can grow food ideal- climate is ideal, availability to water, there is a range of land forms, flat, mountains ans there is good soil quality.
We can make connections in the unsuitable places to live with population density, there are comparassions we can draw from the environment and the population density.

Cultural and Economic factors- highly populated places in the world have an ancient civilization therefor have lived there for a very long time, therefor people learned how to adapt to their environment and support the population.
Industrialization and movment towards urbanization- Quebec- significan industrialization, connections to more recent cultural events that grow population – human geography events.

*population geography- understand distribution factors that produce these patterns