

Defining the Vernacular: Using Online Data and GIS to Delineate the Modern Region

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Perceptual or vernacular regions are those perceived to exist by their inhabitants and other members of the population at large. They exist as part of popular or folk culture. Rather than being the intellectual creation of the professional geographer, the vernacular region is the product of the spatial perception of average people. Rather than being based on carefully chosen, quantifiable criteria, such regions are composites of the mental maps of the population.

—Terry G. Jordan (1978)

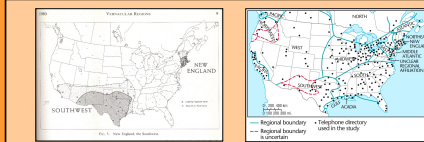
PROCESS and APPROACH

This poster illustrates a process the authors have developed to take current and reliable online phone directory information and create multiple regional zones. These regions are developed using all known business name listings for the entire region, and not simply selected communities in the area. The regional "definition" or zone is created using ArcGIS, Spatial Analyst, and ArcScene to determine a zone or pocket in which the desired name or names are highly prevalent. Also, it is possible to define both the core and the periphery of these regions by varying the intensity levels and number of rings or subregions upon which the visual display is comprised.

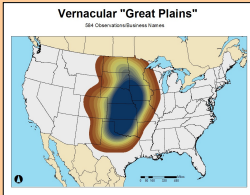
In the past, vernacular regions were sometimes defined using phone listings of business names with the regional "name" as part of the business name, although due to time and labor constraints these usually consisted of a sample of business names from major cities in the region. In this study, we were able to extract a much larger and more complete "sample" of business names by using online phone directories such as SuperPages.com and YellowPages.com. We were also able to locate the businesses down to the zip code level, providing an even greater level of spatial delineation of the businesses. After compilation of these business locations by zip code, we used Spatial Analyst to create a density surface to depict the highest density (core) of the vernacular region, as well as the lower density outlying (periphery) of the selected region. The maps shown in this presentation are a sample of the regions we have defined to date.

For the six base regions shown in this presentation there are two maps: The first is a derived surface of a simple density map of business names across the region, while the second shows business name listings normalized by population. The second map helps to lessen the impact of large cities where larger numbers of businesses obviously exist, although we view both as vitally important to fully understanding the functional region as it exists on the landscape. The three maps at the bottom of the presentation show 3D depictions of the surfaces outlined above, allowing the user to gauge the relative strength of the regions, and potentially develop an overview map of all major vernacular regions similar to those of Zelinsky shown below.

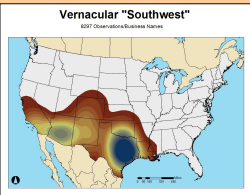
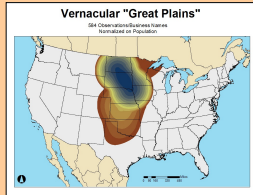
The authors wish to thank the students of Geography 4353 in the Fall 2003 term for gathering the initial point data used for the base maps, and Mr. Casey Petty for his assistance in creating the 3D depictions.



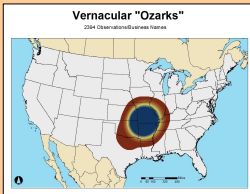
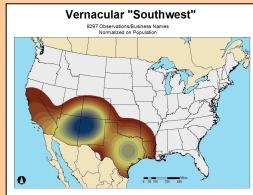
Past Definitions of Vernacular Regions
 From Zelinsky



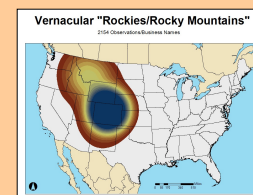
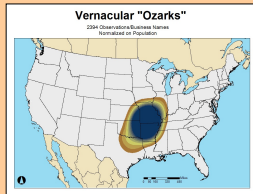
The Great Plains Base Region



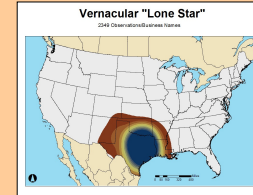
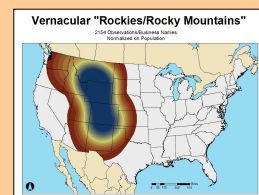
The Southwest Base Region



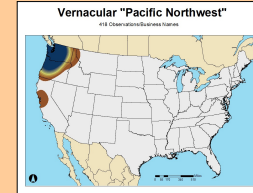
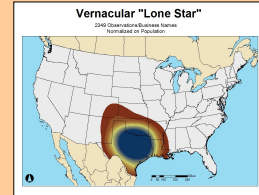
The Ozarks Base Region



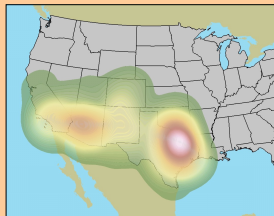
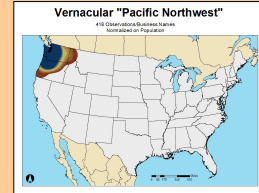
The Rockies/Rocky Mountains Base Region



The Lone Star Base Region

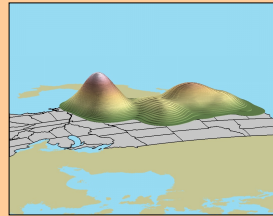


The Pacific Northwest Base Region



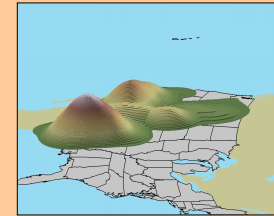
Top Down 3D Southwest Region

This image depicts the Southwest Vernacular Region in a 3D format looking from the top-down. As in the earlier image of the density map, you can see the strength of the region in Texas, with a secondary core in Arizona



Oblique 3D Southwest Region

This image shows the Southwest Region in the 3D perspective from an oblique angle to the Northeast. The relative strength of the Texas core as compared to the Arizona secondary core is extremely noticeable in the view.



Oblique Southwest and Rockies Regions

This image shows both the Southwest and Rockies 3D depictions from an oblique view angled from the east. In this image the relative strength of the Southwest vs the Rockies regions can be identified. Images such as this will also allow for the creation of a nationwide map of Vernacular Regions similar to those of Zelinsky shown above.