



## Human Geographic Mapping as a Means of Congressional Re-Districting September, 2021

### **Why Now? The Context of Current Redistricting Efforts**

People everywhere develop an attachment to place. Residents in place-based communities readily identify when their neighborhood, town or region ends and another begins. Day to day interactions, talks with neighbors and co-workers, shopping, visiting and family ties operate within predictable geographic patterns. Moreover, there is consistency across social classes in the social boundaries people describe. Human geographic maps capture the unique beliefs, traditions, and stories which tie people to a specific place, to the land, and to social/kinship networks, the reflection and function of which is called culture. Human-geographic boundaries represent the informal systems of communities. They reflect the boundaries within which people conduct their lives.

The U.S. Constitution requires congressional redistricting every ten years after the census is complete. We at CSEPP believe that use of human geographic mapping offers an objective, social science-based approach to accomplish re-districting that accurately captures the social reality of citizens in their everyday lives and offers a way forward to reflect the uniqueness of each setting while meeting necessary requirements such as population levels, ethnic balance, and other stipulations of the Voting Rights Act.

CSEPP principals have conducted human geographic mapping since the 1980s and have demonstrated its utility in several policy settings, including:

- Required development of Forest Plans within the U.S. Forest Service, Region 2, 1985, generating the receipt of the U.S. Forest Service 75<sup>th</sup> Anniversary Gifford Pinchot Award for Socially Responsive Management.
- As a means of marketing business products of U.S. West (which merged to become Quest and later Century Link).
- The Bureau of Land Management within the U.S. Department of the Interior signed a 30-year map licensing agreement in 1995 for use of our human geographic mapping for its districts. BLM's stated objective was:

“refining and demonstrating community assessment methods to help the BLM and its partners address social and cultural criteria for more effective public participation and

collaboration when making planning and other decisions - a key element in building capacity for community-based approaches to land and resource management.”<sup>1</sup>

- Over 10 individual National Forests and BLM districts have signed map licensing agreements to make use of the maps for planning, community engagement purposes, and management programs. For example, in 2011, the Spokane District of BLM used human geographic units as its planning units in the eastern two-thirds of Washington State.
- Washoe County, Nevada developed an Issue Management program in the 1990s in which county staff conducted human geographic mapping. The result was a map showing neighborhood boundaries identified by residents and a system for monitoring emerging, existing and disruptive issues. Their system has the ability to call up issues either by geographic location or by type of issue.
- The City and County of O`ahu supported a Social Impact Management System (SIMS) in the 1980s in which CSEPP principals mapped the neighborhoods and community zones of the island as part of an effort by County Council to improve the decision-making process of county government to in an area of highly-contested decision-making.

The maps provide corporate and government clients the means to “match the culture.” That is, they allow formal organizations a way to better understand the culture of a local area and to be responsive to its interests. This mapping encapsulates the informal network systems people use for communication and support that are present in any community. In short, the social boundaries that people use to order their lives can be mapped and used to create responsive approaches to promoting and supporting democratic processes.

### **A Case Example of Re-districting Using Human Geographic Maps**

An example of using human geographic maps to accomplish congressional re-districting occurred in 1982 when maps and analyses developed by CSEPP’s predecessor organization, the Foundation for Urban and Neighborhood Development (FUND) Inc., were used by then-judge Sherman Finesilver to redraw the congressional boundaries when Colorado received a sixth representative after the 1980 Census. The Democratic governor and the Republican state legislature had reached an impasse and the task of redrawing district lines was thrown into federal court. In order to achieve population balance, either Fort Collins or Pueblo had to be included in a district with all the sparsely populated counties in the western part of the state.

Although Pueblo and Fort Collins were both university towns of similar size situated along Colorado’s Front Range at the edge of the Rocky Mountains, they were culturally very different. Pueblo has a large Hispanic population and a strong industrial base while Fort Collins is an agricultural center that is largely white and professional. Both communities are about the same distance from the metro Denver area and were reluctant to be absorbed into its suburban counties. However, based on the human geographic mapping process, Pueblo was shown to be at the center of several ethnic cultures that reached deeply into the counties of the Western Slope, while Fort Collins was culturally compatible with the urban counties of the Front Range.

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<sup>1</sup> James Kent and Kevin Preister, “Methods for the Development of Human Geographic Boundaries and Their Uses,” June, 1999, [http://www.jkagroup.com/Docs/JKent\\_MethodsfortheDevelopment.pdf](http://www.jkagroup.com/Docs/JKent_MethodsfortheDevelopment.pdf),

Relying in large measure on this information, Judge Finesilver placed Pueblo in the 3<sup>rd</sup> Congressional District with the rural counties of western Colorado. It has proven to be a good fit. The district has had six representatives since it was re-formed, including the last Native American to serve in the Senate, Ben Nighthorse Campbell<sup>i</sup> (Quinkert et.al. 1986).

### **Scales of Human Geographic Mapping and their Definitions**

Human Geographic Mapping yields five scales of human geographic boundaries:

1. Neighborhood Resource Units (NRU)
2. Human Resource Units (HRU);
3. Social Resource Units (SRU);
4. Cultural Resource Units (CRU); and
5. Global Resource Units (GRU).

The attached map shows two of these five scales, the Human Resource Unit (HRU) and the Social Resource Unit (SRU). HRUs are the smaller units and are shown in blue, while SRUs are larger units and are shown in red. It is best to visualize blue lines under the red lines, so that SRUs are rightly seen as the aggregations of the HRUs within them.

Human Resource Units are roughly equivalent in size to a county but seldom correspond to county boundaries. HRU boundaries are derived from the **seven cultural descriptors** defined below through resident interviewing. HRUs are characterized by frequent and customary interaction. They reveal face to-face human society where people could be expected to have personal knowledge of each other, have well-developed informal networks by which they survive and thrive, and informal caretaking systems are the strongest. People's daily activities occur primarily within their HRU including work, school, shopping, social activities and recreation. Health, education, welfare and other public service activities are highly organized at this level with a town or community almost always as its focal point. A sense of place, a sense of identity with the land and the people, a sense of a common understanding of how the resources of their Unit should be managed, and a common understanding of how things are normally done characterize this territorial level. The regularity of interaction within an HRU reinforces a recognition and identification by the residents of natural and man-made features as "home." Because of this familiarity, boundaries between Human Resource Units are clearly defined in the minds of those living within them.

Human Resource Units aggregate to form Social Resource Units in the CSEPP mapping system. Social Resource Units are the aggregation of HRUs on the basis of geographic features of the landscape, often a river basin or geological province, for example, and on the basis of shared history, lifestyle, livelihood, and outlook. At this level, face-to-face knowledge is much reduced. Rather, social ties are created by action around issues that transcend the smaller HRUs and by invoking common values (For example, "We are ranching country around here," Ochoco HRU, Oregon). SRUs are best characterized by a sense of belonging. These are rather large areas and one's intensity of perception as to the Unit's boundary is much more general than at the Human Resource Unit level. Those hold a general feeling of "oneness" who are a part of this regional Unit, and a general understanding and agreement on values and the attributes of being a part of the Unit.

The physical and biological environments play a large role in the development of the cultural pattern at this level of the progression. To a large degree, these environments determine the kinds of basic industries available for people to develop their culture around, and how the industries function in the most effective manner to preserve and strengthen the cultural pattern of the Unit. Population density is also a factor that defines and delineates Social Resource Units. Large areas of high population density separate Social Resource Units from surrounding areas of lesser population, but they still reflect in their cultural pattern the broad physical and biological environment in which they occur. Social Resource Units are usually larger than single cities, but are smaller than most states. Sometimes a Social Resource Unit will include portions of more than one state as shown in the map below.

A key point is that human geographic units seldom correspond to political boundaries. Instead, they develop by virtue of the terrain within which they are located, with watersheds corresponding in many cases to the human geographic boundaries since ridgetops are natural barriers between populations. In addition, the resources available to develop economic activity, and the social relations that develop through the material activities of daily life, occur within these boundaries and are the means by which people survive and make a living.

Human Geographic Units are determined through the application of Seven Cultural Descriptors, each of which has multiple characteristics which are probed during interviews and community fieldwork:

1. **Settlement Patterns** - population distribution in a geographic area, including historical cycles of how people came and left the area;
2. **Publics** - segments of the population having common characteristics, interests or recognized demographic features;
3. **Networks** - informal but structured organization of individuals who support each other in predictable ways because of their commitment to a common purpose, shared activities or common values;
4. **Work Routines** - the ways in which people earn a living, including where and how;
5. **Supporting Services** - any arrangement people have to take care of each other using family, neighborhood, friendship and other community support systems;
6. **Recreational Activities** - how and where people spend their leisure time;
7. **Geographic Boundaries** - any unique physical features that defines the extent of a population's routine activities (Greive 1980).

## **References**

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Figure One:  
Human Geographic Units of the State of Oregon  
Shown with Current Congressional Districts

As shown on the following map, the current congressional maps show remarkable convergence with human geographic units in several places around the state, notably along Interstate 5 in central and northern Oregon. In other areas, one can see how cultural zones were bifurcated or missed entirely. These differences can form the basis of early discussions about using these methods to accomplish re-districting in the State of Oregon.



# Human Geographic Units in the State of Oregon with Congressional Districts, 2021

## Why Human Geographic Mapping?

People everywhere develop an attachment to a geographic place, characterized by a set of natural boundaries created by physical, biological, social, cultural and economic systems. This is called a Bio-Social Ecosystem. The term was created in 1991 by James Kent and Dan Baharav to integrate social ecology and biology in addressing watershed issues with people being a recognized part of the landscape. Unique beliefs, traditions, and stories tie people to a specific place, to the land, and to social/kinship networks; the reflection and function of which is called culture.

For the first time in United States history, social and cultural historians are studying the NHP program. The first book, *Wilderness and the American Mind* (1970), by Roderick Nash, was the first to look at the NHP program in the context of the New Deal. The 1970s and early 1980s as part of JKA group's work with the Forest Planning process for the U.S. Forest Service, Region 2. The USSS was looking for new and creative ways to empower citizens as part of the Forest Plan. The HIGHS were published as an integral part of the Forest Plan with the U.S. West (now Quest) Corporation to map the 14 states that made up their service area in order to change the cell phone business based on cultural word-of-mouth and natural business systems. Subsequently the HIGHS have been used by communities, businesses, corporations and professional designers to improve relationships, make better projections, develop new products and services, and understand emerging patterns in order to change the way government and business is conducted. In 2000, the Bureau of Land Management (BLM) of the Department of Interior, entered into a license agreement with CSEIP to digitally produce the Human Geographic Maps and to use them in planning and management with BLM district offices.

Operating at the proper scale brings optimum efficiency and productivity to projects, programs, marketing, policy formation and other actions by working within the appropriate social and cultural context.

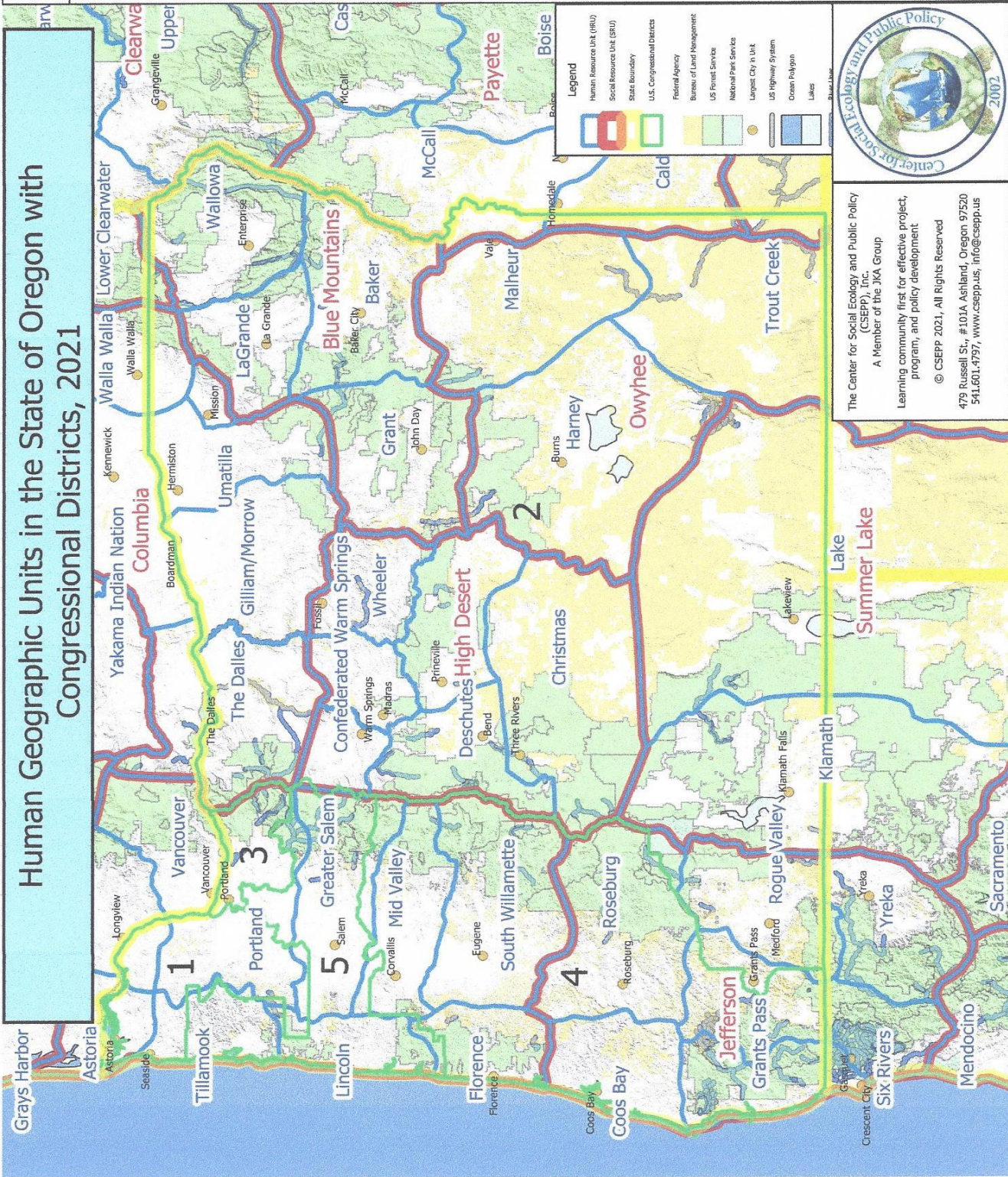
Six different scales of cultural or human geography have been discovered which have been successfully applied to program and policy development:

1. Neighborhood Resource Unit (NRU)
2. Community Resource Unit (CRU)
3. Human Resource Unit (HRU)
4. Social Resource Unit (SRU)
5. Cultural Resource Unit (CURU)
6. Global Resource Unit (GRU)

The HQs represent the culture of a geographic area, especially the informal systems through which people adapt to changes in their environment, take care of each other, and sustain their values and lifestyles. The HQs represent the boundaries within which people already mobilize to meet life's challenges. Hence, their experiences are used through their participation as place-based knowledge to create ownership in issue resolution, project planning and implementation, public participation, and public policy development.

CSEPP employs human geographic mapping to foster and enhance the health of communities and their environments. By "entering the routines" of the community ("The Discovery Process"), the actual functioning of the culture, and its resilience and absorption capacity is described, including the geographic features that distinguish one population from another. Efforts to mobilize people in their environment, and to foster empowerment in dealing with change are called for. The concept of a "social alignment" (SAL) is described. SAL is a social alignment that is achieved, that is, when certain issues in the community are integrated with the management concerns of institutions, the capacity of both is enhanced in creating a healthy environment. HGMs are a key tool with which to accomplish integrated resource management.

Essential to sustainable bio-social ecosystems is the ability to grow indigenous processes of empowerment and governance based on management of human and physical issues within natural boundaries. HGIMs provide the natural boundaries necessary for freeing the energy and creativity of a place-based culture to collaborate on its future.





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