

## DEFINING URBAN AND RURAL

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Trudy Suchan

Department of Geography

The Pennsylvania State University

University Park, PA 16802

**ABSTRACT.** Land use classification for mapping or GIS input relies on definitions relevant to source data, such as those provided by the U.S. Bureau of the Census or U.S. Geological Survey. Conceptions of *rural* and *urban* for land use specialists comprise these explicit classification rules together with economic, demographic, social, cultural, political, technological, and environmental components. Embedded in the cultural component is an assumed common understanding of *rural* and *urban*, including the American myths of country life perpetuated in children's books, teaching of Jeffersonian ideals, and multiple other sources in our everyday, lifelong experience. Based on these many components, differences between *rural* and *urban* clearly exist in our minds, if not in the landscape; despite the seeming clarity of *rural* and *urban*, the problem of delineating land use boundaries for accurate representation still exists. This paper consolidates multiple ideas of what constitutes *rural* and *urban*, from academic and popular sources.

#### INTRODUCTION

Categories on maps and in uses such as the U.S. Bureau of the Census compilations of information are designed according to classical set theory, that is, are based on rules specifying necessary and sufficient conditions for category membership and assuming internal homogeneity of categories. An alternative form of categories is suggested by Rosch's (1978) prototype theory. In this model of categories, members are prototypes and non-prototypes. A prototype is the clearest case of category membership, an abstract representation of the most typical members of the category, defining criteria for membership in a category. Non-prototypical members vary from most-typical instances near the category prototype to least-typical instances near the category boundary, which may be ill-defined and fuzzy.

Land use categories such as *rural* and *urban* exhibit prototypical form at several levels. In the landscape, a land use type is likely to be very prototypical at the center of a use area, but becomes mixed with other uses at the boundary, forming a transition zone that is difficult to describe or represent in a simple way. A kind of landscape representation that is prototypical, is the mental conception of *rural* and *urban*. This paper explores components of rural and *urban* in an attempt to reconstruct the variation within *rural* and *urban*, both in the landscape and in the mind, that is lost to simple labels and firm boundaries.

RURAL AND URBAN—STANDARD DEFINITIONS

The *Oxford English Dictionary* (1989) (OED) offers these definitions:

Rural – Of persons: living in the country; having the standing, qualities, or manners of peasant or country-folk; engaged in country occupations; agricultural or pastoral...Of or pertaining to, characteristic of, peasants or country-folk; rustic...**Pertaining to, or characteristic of the country or country life as opposed to the town.**

Urban – **Pertaining to or characteristic of, occurring or taking place in, a city or town.**

The portions of the definitions shown in bold above particularly are interesting; they indicate that the practice of dividing the world into metropolitan or urban and, simply, all else, has distinguished lineage. The U.S. Bureau of the Census (the Census) definitions are based on this approach.

The Census has wrestled with definitions of *rural* and *urban* for more than a century, beginning in 1880 when it distinguished cities of 8000 or more people from the rural population. The 1890 census included the first specific definition of rural population. The 1900 census created a third class, *semi-urban*, which meant incorporated places of less than 4000 people, defining a lower limit of urban population. A 1906 analysis of the 1900 census data lowered the limit of urban-area population to 2500, which is still the standard (Hart 1959). Before 1950, urban areas were incorporated places only, of 2500 or more people. With the 1950 census, the new class *census designated places* attempted to put boundaries around urban but unincorporated places, too.

The 1970 census identified *extended cities*, standards for territory (area) but not explicitly tied to population or housing-unit densities. The class was created to recognize urbanized areas around smaller urban centers. In such a case, the political boundary may encompass rural areas (in anticipation of development, for instance) but the Census boundary is drawn around the core and denser-populated area only. The Census also accounts for *urbanized areas*, making a nice polygon around one or two central places, the whole to include 50,000 or more people. This configuration, in contradiction to the extended city class, may include rural bits at the boundaries and islands of sparse population.

Until early in this century, the rural population was synonymous with farmers and their families. The 1930 census, however, divided the rural class into farm and nonfarm populations. If nonfarm is taken to mean urban people living in the countryside, as Hart (1959) asserts, then it's been 60 years since *rural* and *urban* have had distinct meanings. Nevertheless, the Census has retained these classes, trying to construct real meanings for the terms, changing with the changes in American people and places.

The core of the 1990 census *rural* and *urban* definitions are:

Rural – territory, population, housing units not classified as urban. Includes *rural farm* and *rural nonfarm*.

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Urban – all territory, population, and housing units in incorporated or unincorporated areas with 2500 or more people (U.S. Bureau of the Census 1990).

Cartographers' struggles are similar to the Census' in defining terms and drawing boundaries around rural and urban areas, yet the map user assumes that the boundaries are firm and classes distinct in each case. The U.S. Geological Survey (USGS) topographic series maps are an example of *rural* and *urban* as defined in cartography. The maps show built-up areas either through dense clusters of building symbols or use of the pink "building omission" tint. Opposed to these is all else—the void striated with fine topographic lines and studded with symbols of land use (road networks; power lines; outdoor movie theaters; sewage treatment facilities).

## ENRICHING THE DEFINITIONS OF *RURAL* AND *URBAN*

Better definitions of either *rural* or *urban* require consideration of human relations to the world and to fellow people (after J. B. Jackson in (Zube 1970)Zube 1970). The following sections of the paper touch on social, cultural, political, and environmental components of *rural* and *urban*, to enrich the economic and demographic stuff of the Census and the visible land cover/land use perspective of USGS cartographic series.

## TOWARD A DEFINITION OF *RURAL*

**The Romance of *Rural* vs. the Reality of Numbers.** Estimations of rural area support the enduring vision of the United States as a rural landscape. Considering land area, of the approximately 1900 million acres in the contiguous U.S., 1839 million, 96.8%, are rural. Of these, 964 million, 52.4% of total acres, are farmland and 517 million or 28.1% of total acres are public lands. The remaining land is nonfarm (Crosson 1991). Aggregate census data, however, clearly illustrate the population shift from rural to urban. Between 1910 and 1920, a landmark shift is noted—less than half the population was rural. Between 1950 and 1960, the one-third mark in the rural/urban split was passed. In 1991, the rural population totaled 68 million, 27% of total U. S. population, but of these only 4.5 million are rural farm residents, 1.9% of the national population or 6.8% of the rural population (Dacquel & Dahmann 1993).

**Components of *Rural*.** *Rural* is panoramas of farms and mountains; also, *rural* is slow-paced and working-class. "A working country is hardly ever a landscape. The very idea of landscape implies separation and observation" (Williams 1973). "[Suburbanites see the] rural landscape not as a productive system or a way of life, but as a locational amenity" and, beyond the landscape, includes amenities like "[e]asy travel, cheap land, permissive building codes (or none at all), tax structures, the absence of minorities in schools" (Riley 1993). "While farming creates the atmosphere and bucolic landscape so many homeowners wish to be part of, it is the business of farming...that these same residents often find offensive" (Lapping 1991). *Rural* includes the "smells, noise, pesticides, and other attributes of agriculture" (Mantell, Harper, & Propst 1990).

Fitchen (1991a) writes at length on the subject of *rural*. Like Castle (1991), she states that *rural* is relative to whatever is nearby. Agriculture is the basis of the folk conceptualization of *rural*, continuing the Jeffersonian tradition. Farming is a means of natural resource extraction and, in fact, an

array of natural resources extraction industries—farming, mining, forestry, energy production, and fishing—are important in the traditional rural economy (Castle 1991; Fitchen 1991b). Also included in the rural economy are manufacturing of everything from cheese to calendars, and service-sector jobs in institutions such as prisons, nursing homes, and facilities for the developmentally disabled—these are stable employers. The better service-sector jobs are located in school districts and local government; Coppedge (1991) adds federal defense jobs (the country is removed from the places of politics, but is not apolitical: the government has a presence in *rural* via programs, funding, and off-farm jobs). Finally there are low-paid retail and tourism jobs.

Fitchen (1991a) also highlights physical attributes of rural land—hills and valleys, streams and lakes, field and woods, your own land together with your neighbors', state or federally-owned parks and resource lands, plus “thousands of acres of abandoned fields and of scrub-forested hills.” They all add up to a sense of openness, a communal setting necessary for sociocultural components of rural life like hunting. The landscape composed of these is the setting and symbol of rural life. Communities nestled in the “natural” landscape are small and friendly. *Rural* is a family place (at several scales, both nuclear family and community as family), a chosen place. Finally, *rural* is secure in both physical and symbolic ways. “This is the kind of place where you never have to lock your doors.”

Rural residents cling to the myth of stable population, believing that communities are composed of the same families for generations; that everyone knows everyone else; that there are few newcomers to the community. The myth is shored up by artifacts in the landscape—related farms with the same name on the mailbox are nearby, often-traveled local roads bear the old family names, the “names” occupy local offices—and local cemeteries. The myth persists despite generations of steady population loss in the farm belt of the Midwest and areas of the South and West and influxes of new retirement and recreation facilities (Herbers 1986).

What the country looks like is one thing: what the rural population looks like is another: “White persons comprise nearly all of the farm resident population, with Black and other races only about 3% of the total” (Dacquel & Dahmann 1993). This is a part of *rural* that few probably think about, and but those few that do experience the look of the population quite differently: “Minorities constitute a majority of the population in many low income rural areas [of New Mexico]” (Coppedge 1992).

Whatever country people look like, there aren't a lot of them in any one place. The essence of rurality is relatively lower population density (Castle 1991).

**Summary.** Economically, *rural* is agriculture plus other livings earned off the land, along with economic components we may associate with *urban* rather than the *rural*: manufacturing, service and government jobs, plus that egalitarian economic condition, poverty. A contiguous extent of “undeveloped” land, in agriculture, but also in wasteland and in federal holdings, describes the look of *rural*, and covers a majority of the contiguous United States. The environment is inseparable from land use. A positive environmental aspect is aesthetic—the open, scenic, restful, pastoral *rural*. Negative aspects, however, are multitudinous: the smell and noise of agriculture often betokening animal and chemical impositions on the land and water; denudation of forest land; pollution and scars of mineral extraction. Rural demographics show mostly white people. Whatever their skin color, they are today a minority of the U. S. population by virtue of their place of residence. Social and cultural attributes of *rural* include small communities, secure places—this is the area where *rural* is the opposite of *urban* in very personal estimations, and where the imagined is often contrary to the evidence, i.e., the myth of stable population that (Fitchen 1991a) carefully debunks. Ultimately, and frustratingly, “[r]uralness... is...an identity, a way of life, and a state of mind” (Fitchen 1991a).

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### TOWARD A DEFINITION OF *URBAN*

**Components of *Urban*.** According to the OED (1989), *urban* can be traced back only to the 17th century. *Urban* has traces back into the 14th century. While not at the urban scale, therefore commenting rather than contradicting the OED definitions, Jackson (1980) writes that before farms were settled, towns were in place as trading posts, defense installations, and transfer points in river navigation.

*Politics* means affairs of the city (Gottman 1958). Long before Gottman's expressed it, Thomas Jefferson took this meaning seriously, not only preaching that powerful government was centralized in cities, but that politics, luxury, and wealth were embedded in cities, too, to the extent that cities were sores on the body politic, embodying useless luxury, corrupt wealth, and political exploitation (Zube 1970). A modern interpretation of this view is Meinig's (1979) urban symbols of "power, energy, daring, sophistication...[where] success [is] defined in terms of money, power, and prestige."

L'Enfant acted on the belief that cities should be monumental. Mumford (1963) described cities as the ceremonial center. This included, in ancient cities, attempted control of external cosmic forces. I would assert that the political, monumental, and ceremonial roles of cities are still intact (Washington, D. C., for example).

Williams (1973) ascribes many possible roles to cities: "State capital, administrative base, religious centre, market-town, port and mercantile depot, military barracks, industrial concentration." Gottman (1958) states that cities and what goes on in them are created by the combination of the crossroads function, which is itself the market function and access (and concurs with Jackson's historical town roles described above) combined with population crowding. Cities require and are defined by a certain density of activities, communications, and transportation. People come to the city for shopping, entertainment, financial credit, education, better jobs, and a better life, all of these aided and abetted by the cities' crowded condition. An urban environment is defined by the density of its street network, which has priority over the environment of buildings; notions of urban environmental, economic, and social systems depend upon the transportation network for movement, communication, and orientation.

Infrastructure is part of the story but Edallo (1953) says that "[c]ity planning starts out as a matter of designing and building; it ends up as a kind of social reform." he argues that infrastructure such as utilities, buildings, streets, and parks must be brought into harmony with technical and economic factors, and into harmony with the social needs and well being of city inhabitants.

A current urban planning textbook (Eisner, Gallion, & Eisner 1993) shows how even the institutionalized academic agenda has expanded from modeling historic and modern forms of the city to a more holistic description of *urban* including "enviodynamics...[the] ecosphere...planning with minorities...art in the city." To these add gentrification, historic preservation, cultural districts, sports franchises/spectator facilities, plus informal use of public spaces—street life—from pushcart vendors to the homeless.

Current ideas include cities as organisms and systems of events rather than as place-centered realms (Rowe 1991). Knos (1994) describes urban space as a "catalyst for innovative and expressive qualities of individual and social life." These qualities are not placeless, but are evidenced in some place such as Zelinsky's *voluntary districts* (in Meinig 1979). If cities still are places, perhaps, as Herbers (1986) would have it,

They are specialized, subordinate nodes in their overall metropolitan areas, providing tourism, culture, entertainment, financial and communication bases, and storage places for the poor and elderly....

Incidentally, these modern conceptions of *urban* are closer to Jackson's lively ancient cities ("squalid, smelly, disorderly, exciting and magnificent...what marvelous color and variety, what a superabundance of life" (in Meinig 1979a) than to the often-quoted *Places Rated Almanac* quality of life rankings (in Knox 1994) based on nine components, as follows:

1. Cost of living
2. Job growth
3. Crime
4. Health care
5. Transportation
6. Climate
7. Recreation
8. The arts
9. Education

Jackson's words about the chaotic but life-filled city also evoke a far more hopeful image than the negative stereotype perpetuated by the U.S. Department of Housing and Urban Development (Cisneros 1994), which says that cities are:

populated by residents lacking job skills and lacking access to places where the jobs are;

concentrated, isolated inner-city neighborhoods of poor and minority families far from the mainstream of American life;

violent places; unemployment, drugs and crime create an environment of fear;

peopled with homeless in the streets; and

lacking the "stores, services, and civic organizations that we take for granted."

**Summary.** Urban land use is revealed by dense transportation networks and surface coverage by structures and hard surfaces. The city is the place of politics and power enabled by communication technology. The economic component of *urban* traditionally is its market function. Today these include shopping, entertainment (embedded in, possibly, cultural districts or other special-purpose places like spectator sports facilities), financial markets. People in the city are suburbanites (visitors, really, consumers of jobs and amenities); minorities; the elderly; the homeless; those interested in living in gentrified areas, in a gay community, or who have some other special commitment to the urban milieu. Sociocultural elements are evidenced by communities within a city—the arts, gentrifiers, inner-city neighborhoods, the drug culture, and places claimed by the homeless, by street vendors and performers.

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Does any of this help us understand the current phase of cities' "regular transformation in function, form, and appearance" (Knox 1994) beyond Riley's (1980) classification of such change in American cities from "...toney to trendy, even to tawdry"?

### UNAVOIDABLE FORAYS INTO THE RURAL/URBAN INTERFACE

**The Country in the City.** The literal and possibly erroneous parts of country in the city are the low-density areas at the urban fringe that the Census (1990) includes in an *urbanized area* if such inclusion "eliminates an enclave or closes an indentation in the boundary of an urbanized area." About a quarter of the 4.6 million farm-resident population, 1.15 million people, live in metropolitan areas (based on Dacquel & Dahmann 1993).

A less literal interpretation is country in the city in the sense of *rural* as a landscape feature. Jackson (in Meinig 1979a) refutes the country/city, natural/artificial dichotomies, rather asserting that nature is omnipresent in the city, in ways held in common with the country: in climate, topography, vegetation, the invisible landscape of spaces, color, light, sound, movement, and temperature. Edgar Anderson, in a 1956 essay in *Landscape*, concerned himself with this theme of nature in the city. He began with "botanical gardens, islands of greenery in the midst of big cities...displaying the countryside, or a reasonable imitation of it, in the midst of a city." But he recites at length the woes of literally having country in the city, finally urging that attention turn instead to city plants and animals: "...trees of heaven, squirrels, sunflowers, dogs, dandelions, cats, crabgrass, English sparrows, weeds of all sorts...learn the dynamics of waste lots in the city, of dump heaps, and of city parks" (Anderson 1956).

**City People in the Country.** Urban dwellers rely on land in rural areas to meet a variety of recreational, cultural, and institutional needs, dude ranches to wilderness areas, historical villages to military bases, cemeteries to radioactive waste dumps (Fitchen 1991a; Hartshorn 1980). Consider, for instance, Lancaster, Pennsylvania as a popular tourist attraction, the agricultural landscape peopled by the Amish in their anachronistic garb, traveling by horse and buggy. Urbanites use rural lands for non-consumptive activities, i.e., scenic country drives, observing and feeding wildlife (Crosson 1991).

**City People View the Country.** It is important to know the rural self-image vs. an urban image of *rural* (Castle 1991). (Williams 1973), examining country and city through English literature, says "...it mattered very much where you were looking from." Riley (1993) proposes a list of questions to ask new rural residents, in order to understand the conceptual qualities for them of country living, including

Are you *in the country*? If not, why not? If so, what makes it *country*? What would make it *not country* anymore?

### FINAL OBSERVATIONS

Williams (1973) states that "the contrast of country and city is one of the major forms in which we become conscious of...the crises of our society." Others would argue that I'm attempting something meaningless by defining *rural* and *urban*: "The differences between rural and urban ways of life have become increasingly blurred...but many people still cling persistently to the old stereotype...and they still try to make clear distinctions between *urban* and *rural* when in actual fact the two are no longer distinct" (Hart 1963). Rowe (1991) asserts that the transition has been made from city/suburb/countryside to an urban/metropolitan juxtaposition, period.

**Reprise: Why *Rural* and *Urban* Definitions are Important.** Despite these incomplete definitions, and despite opinions about the blurring of rural/urban distinctions, we identify ourselves with rural or urban locales; the distinction does have meaning in our conception of the United States and certainly of our own region and community. Pictures are needed to show in shorthand the diverse rural and urban landscapes, the country in the city, and the urban uses of *rural*. Translating the words and images into better representations of land use is a future challenge.

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