LANDSCAPE EVOLUTION AND CARTOGRAPHIC BIAS IN CRANBERRY TOWNSHIP, PENNSYLVANIA

Francis P. Boscoe  
Kent State University

David Prytherch  
Pennsylvania Department of Environmental Protection

Abstract

The agricultural landscape of Pennsylvania continues to be under encroachment from medium-density residential and commercial construction. This has resulted in the creation of new landscape patterns, places, and place names. Correspondingly, old place names have fallen into disuse or obsolescence. Perhaps nowhere else in the state is this more evident than in Cranberry Township, Butler County. The fastest growing municipality in the state in 1994, Cranberry issued over 500 building permits. This paper examines the mapping of Cranberry for the purposes of exploring the relationship between the place names on maps and the place names currently used in the contemporary landscape. The authors find that maps are generally much more inclined to represent obsolete farm villages than elements of the present-day postmodernized landscape, and that more than mere cartographic lag is accountable for this. A variety of cartographic biases are discussed with respect to Cranberry.

Introduction

Cranberry Township occupies the southwest corner of rectilinear Butler County, Pennsylvania. Bordered on the west by Beaver County and by Allegheny County to the south, Cranberry is twenty-seven miles and a 30 to 40 minute commute from downtown Pittsburgh. A low-density agricultural area from its settlement by Europeans in the late eighteenth century, today Cranberry is more than forty years into a suburban residential and commercial development boom. Driven by the postwar construction of multiple interstate highways that intersect within the township, the rapid development of the area has created a radically altered landscape of retail shopping centers, light industrial parks, and single
home residential development. This landscape of sprawl has effectively supplanted the farms and minor village settlements that once characterized Cranberry.

A variety of contemporary maps from both governmental and commercial sources depict Cranberry Township. Questions may be posed as to how well these maps represent the landscape on the ground, and the human landscape in particular. If a map is a symbolic representation of a physical place, one that is never free of its cultural context or its maker's motives (Wood and Fels, 1986), then the field-checking of map features against the contemporary landscape can provide insight into those contexts or motives. Moreover, making such comparisons for an area that is undergoing such rapid change raises questions about how maps respond to change in the landscape, and why they respond the way they do. Specifically, this paper will investigate the manner in which these maps represent one aspect of the human landscape, the names of places.

Basic aspects of toponymy are presented by Stewart (1958). A discussion of the postmodernized landscape and the need for "new modes of criticism and confrontation" is given by Soja (1992). With respect to maps, Harley (1989) has written definitively on the redefinition of maps as representations of power rather than objective forms of knowledge, and on cartographic ethics with respect to place names (1990). Monmonier (1991) has studied the deliberate omission or obscuring of defense-related sites and toxic waste dumps from USGS maps. Factors affecting place name inclusions and exclusions in Cranberry are generally for less explicitly political reasons.

Methodology

The study consisted of obtaining maps of Cranberry, determining the historical significance of the places identified, and then field-checking the maps against the present landscape conditions. Also incorporated into the study were a sample of places found to figure prominently in the current landscape that were not necessarily prominent on the maps. A total of ten maps and seven places were ultimately incorporated in the study. The term "places," as used frequently in this paper, may be interpreted to refer to any residential, commercial and/or industrial clustering deemed worthy of naming by its developers or inhabitants.

Maps were obtained from the United States Geological Survey (USGS); the Cranberry Township Chamber of Commerce (COC); and two commercial...
mapping companies: the DeLorme Mapping Company of Freeport, ME and C.J. Puetz of Lyndon Station, WI. The 1874 Atlas of Butler County was also examined.

USGS maps were obtained at five different scales spanning the bulk of the twentieth century. Mosher-Adams, Inc. published the COC map in 1993 (approximate scale 1:38,000). DeLorme has published both the Pennsylvania Atlas and Gazetteer on paper (1990, scale 1:150,000), and the MapExpert program on CD-ROM (1992, scale variable). The program uses the TIGER files developed by the Census Bureau as its base map. C.J. Puetz published Pennsylvania: County Maps and Recreational Guide (1985, scale 1:200,000).

Table 1 contains a listing of the ten maps acquired in the study cross-referenced against the seven places, indicating which maps depict which places. Figure 1 displays a map of Cranberry Township, showing all of the places, major roadways, adjoining towns and other features discussed in this paper. The following section discusses the history and current landscape status of each of the places, organized chronologically by date of establishment.

Place Histories and Current Landscape Status

Hendersonville

Hendersonville, a stagecoach stop on the Franklin Road beginning circa 1830, functioned as the economic center of the township in the mid-nineteenth century. The 1874 Atlas of Butler County shows Hendersonville as the largest settlement, with several stores and a blacksmith's shop. When the Pittsburgh & Western Railway was built to the town of Mars, five miles to the east, in the late 1870s, stagecoach traffic dwindled and Hendersonville effectively became a ghost town.

Today, Hendersonville best exemplifies pre-development Cranberry, with its original road alignments intact, wooded and agricultural lands still visible, and working farm. Yet the proximity of only five houses (none original; one in the finishing stages of construction) belies the existence of the once-thriving stagecoach stop. The name does not appear on the landscape in any form.
<table>
<thead>
<tr>
<th></th>
<th>Hendersonville</th>
<th>Ogle</th>
<th>Crider's Corners</th>
<th>Glen Eden</th>
<th>Fernway</th>
<th>Cranberry Mall</th>
<th>Seven Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year Established</strong></td>
<td>1830s</td>
<td>1870s</td>
<td>1900s</td>
<td>pre-1950s</td>
<td>1957</td>
<td>late 1970s</td>
<td>1983</td>
</tr>
<tr>
<td><strong>Does this place exist at present?</strong></td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td><strong>Can the name be found in the landscape?</strong></td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>1874 Atlas of Butler County</td>
<td>X</td>
<td>X</td>
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<tr>
<td>1908-1944 USGS 1:62,500 Series (Sewickley Quadrangle)</td>
<td>X</td>
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<td>1955 USGS 1:500,000 State Map</td>
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<td>1979 USGS 1:24,000 Series (Mars and Baden Quadrangles)</td>
<td>X</td>
<td>X</td>
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<tr>
<td>1986 USGS 1:100,000 Series (East Liverpool Quadrangle)</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>1987 USGS 1:50,000 County Map</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
</tr>
<tr>
<td>1985 C.J. Puetz PA County Maps &amp; Recreation Guide</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>1990 DeLorme PA Atlas &amp; Gazetteer</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>1992 DeLorme MapExpert CD ROM</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>--</td>
<td>--</td>
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</tr>
<tr>
<td>1993 Cranberry Chamber of Commerce</td>
<td>X</td>
<td>X</td>
<td>--</td>
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</table>
Ogle

Ogle, located on the Pittsburgh-Erie road (now U.S. 19) in the center of the township, was at its peak in the mid-to-late nineteenth century a small village that contained the post office for the area. The post office was closed in 1902 upon the establishment of rural delivery routes from the nearby towns of Mars and Zelienople.

Presently at the site of Ogle there is a curious-looking commercial structure consisting of a supermarket, an indoor children's playground (admission fee required) called Surfari Sam's, and a discount children's clothing store. A two-story concrete tower rises arbitrarily above the uniform concrete block housing the other businesses and contains several medical offices. To the west of U.S. 19, an original farmhouse and barn still stand and are occupied, one of the few holdout properties in this portion of the township. The name Ogle survives in the landscape again in two places -- on the signs for Ogleview Road, and in the name of a 1980s-vintage shopping plaza called Ogle Station, oddly named in that Ogle never had a station and the word "Ogle" would seem to have limited commercial appeal.

Crider's Corners

Crider's Corners, a small village located at the intersection of the original Pittsburgh-Erie and Mars-Freedom roads, functioned in the early part of the twentieth century as the commercial center of Cranberry, with several businesses including a Studebaker dealership (no actual models were on display; shoppers ordered from a catalog) and a general store housing the township's first telephone (Cranberry Township Historical Society, 1991). It was the main stop in Cranberry for the Harmony Short Line Railroad, which provided trolley service between Butler, the county seat to the northeast, and Pittsburgh between 1909 and 1931. At its peak the trains ran hourly.

Today, standing at the crossroads that defined Crider's Corners, there is only vague evidence that this had been a "place." A gravel parking lot occupies the southwest lot. Looking toward the southwest, one can see the major intersection of 4-lane U.S. 19 with PA 228. Both of these roads were constructed to bypass Crider's Corners and the various houses and farm buildings located along the original roads. Dominant in this direction is the Cranberry Mall and its surrounding sea of parking lots, fast-food chains, and muffler shops. The
northwest lot is home to a Burger King restaurant. The Burger King is positioned toward U.S. 19, so that its rear is toward Crider's Corners. Its dumpsters occupy the original site of the entrance to the general store.

The northeast lot is home to a print shop called Instant Print King. A salesperson in the store confirmed that the building was only ten years old and had been built on the foundation of an original Crider's Corners business. Having grown up in the area, the salesperson was familiar with the name Crider's Corners, but contended that as a place, it was "gone." Only the southeast lot contains an older structure, currently home to a dentist's office. The original east-west road is truncated in both directions: to the west by the Burger King, and to the east by Interstate 79. The north-south road, renamed Dutilh Road after a local church, continues to be a through road to the north, but carries negligible traffic compared to U.S. 19 and I-79.

The Crider's name survives on the landscape in two forms -- on the signs denoting the truncated Mars-Crider Road, and on the cement-block wall of nearby Crider's Garage. The garage is located on another truncated piece of the original road west of U.S. 19, isolated by concrete barriers and road closed signs. A third appearance of Crider's Corners is more virtual in nature. Long-distance callers to the 772 and 776 prefixes still see the name on their telephone bills, an artifact of the original telephone in the general store.

Glen Eden

Glen Eden was the name of Cranberry's first high-income postwar housing development, built in 1957 and consisting of 10 units, but the name predates this development, as it is shown on the 1953 edition of the USGS Mars Quadrangle. Research failed to reveal a printed record of the origin of this place name. A local amateur historian indicated that a dance hall named Glen Eden formerly occupied the site and lent its name to the immediate area and to later development (Cully, 1995).

The original Glen Eden location, at the juncture of old U.S. 19 and Glen Eden road, reveals little evidence of its past. A lone ranch house is visible from the intersection, the topography obscuring the relative density of nearby brand-new housing. Three housing plans called Glen Eden (including two recent large-lot developments and the original 10-unit plan built in the 1950s) are all located some distance from this intersection, though all connected to Glen Eden road.
The newer plans consist of a maze of curvilinear roads and cul-de-sacs, with only one outlet to the main road. At the outlet in each case appear two carved wooden signs announcing "Glen Eden," angled toward the road so that one is visible from each direction. Most of the other self-contained housing plans in Cranberry Township follow the same trend, although none of these names are to be found on any of the maps.

Fernway

Fernway was the first example of a large postwar housing plan built in Cranberry. Consisting of regularly arranged rows of small ranch-style houses without basements, the development was built in the late 1950s on land that had belonged to the right-of-way of the then recently constructed Pennsylvania Turnpike.

The homes of Fernway contrast markedly in size, style, and age with the rest of Cranberry. And, with over 400 houses, Fernway represents the largest residential clustering in Cranberry's history. Yet while it is easily identifiable in the landscape, its name does not appear anywhere on it. As shown in Table 1, only the DeLorme paper map indicates this place.

The United States Census Bureau has deemed Fernway a Central Designated Place (CDP), a designation reserved for unincorporated areas within a township with high population concentrations.

Cranberry Mall

The most significant commercial development that has come to dominate the landscape in recent decades is the Cranberry Mall. Strategically located near the convergence of Cranberry's four numbered highways (I-76, I-79, U.S. 19, and PA 228), the mall was conceived in the 1970s and fully occupied by 1980. In 1995, the mall continues to thrive and expand, serving as perhaps Cranberry's most widely-recognized landmark and defining feature.

While any number of well-defined commercial or light-industrial contemporary "places" could have been incorporated into the study, the mall serves as a sufficient example of a type of place that is prominent in the landscape today but is not represented by maps, with the exception of the Chamber of Commerce map.
Seven Fields

Seven Fields, located in the southeastern corner of Cranberry, was speculative high-income housing development conceived in the late 1970s, and perhaps serves as a textbook example of the real estate speculation excesses of the 1980s. With only a few houses constructed and no permanent residents, the developers took advantage of antiquated Pennsylvania laws regarding incorporation and were able to form a borough, the first in Butler County in over 60 years. The developers were thus able to pass borough-level ordinances that favored rapid development and maximized their profit potential. Their plan to build upwards of 700 houses soon collapsed, however, with uncompensated investors, bankruptcy declarations, and lawsuits aplenty (Pittsburgh Post-Gazette, 1983-85). Several of the key agents in the Seven Fields development have served or are serving jail time.

Seven Fields' incorporated status is still extant, noted in the landscape by small state-supplied signs on PA 228 announcing the intersection of that road with the borough line. While the borough is too new to have possibly been on the 1979 USGS map, it is omitted from other, more recent maps. Its irregular outline is included in MapExpert and thus is part of the TIGER files. The name, however, is not specified, leaving the MapExpert user to speculate what the outline might be representing.

Map/Landscape Dissonance

Based on Table 1 and the preceding discussion, we can make the following general statement with respect to Cranberry Township: old place names, owing largely to the influx of suburbanization, but also to historical railroad routings and the institution of rural postal delivery, are scarcely identifiable in the landscape, and are not used as points of reference by local citizens. Nevertheless, they appear consistently on a variety of maps. New place names are more prominent in the landscape, often in the form of signs erected by the land developers. They are significantly larger in population and/or commercial scope than the historical places ever were. Yet their appearance on maps is largely limited to those maps specifically oriented towards selling new properties.

There is, it appears, significant dissonance between the Cranberry landscape and the maps that intend to represent it. What might be the reasons for
this dissonance? We have seen that Cranberry is a place and a landscape in a
terrific state of flux, changing rapidly in response to evolving societal- and
technological forces. The cartographer is thus presented with a moving target to
represent, which undoubtedly provides a partial explanation, as there is always a
lag involved between information-gathering and map publication. Yet there is
clearly more involved, as cartographers have had the better part of a century to
notice that places like Ogle didn't really exist anymore.

Excepting any influence derived from the short-lived Harmony Short Line,
the primary form of development within the township prior to World War II
remained the crossroads village. These hamlets were discrete points, compact
and spatially independent of one another—changing in location over time, but all
relying on the same types of road-borne commerce. In the post-war era,
however, the pattern of development at transportation nodes started producing
radically different landscapes than had been created before. The widespread
adoption of the automobile has broadened the scope of what it means to be a
crossroads, and therein Cranberry has seen its greatest transforming force. With
particular aggressiveness, the automobile and the road builders serving it, have
supplanted the agrarian landscape with a sprawl of parking lots, commercial
structures, residential subdivisions, and high-speed, high-volume expressways.
From a landscape that once showed strong distinctions between low-density
farming and highly compact villages, Cranberry has followed the ubiquitous
postwar American trend towards medium-density suburban growth. This has
produced what in essence is a two-layered landscape, each derived from the
prevailing transportation modes of its time but so different in form that the later
landscape appears superimposed on the older—expressing change more
revolutionary than evolutionary.

Such radical change in a landscape obviously poses a significant challenge
to the cartographer. But again, the failure of newer maps to remain
meaningfully related to the landscape cannot be rationalized by the rapidity of the
change alone. Let us explore some other possible reasons.

We might suspect that mapping agencies like the USGS have not done the
necessary ground checking. This is possible, but we have already seen that in
representing changes in the physical landscape, such as new structures or roads,
the maps have largely kept pace. While change in the physical landscape is more
easily observed and represented (via photorevision) than change in the human
landscape, there remains the thorny issue of justifying an obsolete hierarchy of
central places in the face of radical landscape change observable even from aerial photographs.

Another possible reason for these discrepancies might lie in the inability of older systems of central place designation to recognize new landscape forms. Compact settlements, especially those that have been incorporated, lend themselves to easy identification and labeling as central places. However, more diffuse development that is often unincorporated has had difficulty finding its way onto general-use-maps. If the recently constructed Cranberry Mall occupies more acreage and conducts orders of magnitude more business than Crider's Corners ever did, is it any less of a central place? It certainly wouldn't appear to be any more difficult to identify and label as such on an updated map. Perhaps the thinking is that, given the diffuse and decentralized nature of the postmodern landscape, the undifferentiated name Cranberry is an appropriate way (or the only way!) to describe the entire 24 square mile area. Yet the housing plan names and shopping center names are used by residents just as Crider's Corners and Ogle were used in previous generations.

One factor that skews how most publicly-produced maps represent the human landscape is a strong anti-commercial bias. There are certainly good reasons for noncommercial mapping agencies to abstain from identifying specific commercial spaces under their commercial name, and thereby avoiding charges of boosterism. But there are many inconsistencies in this approach. Commercial railroads have conventionally been mentioned by name, as have generic commercial activities such as strip mines. Anti-commercial bias might explain the lack of specific identifying labels for subdivisions and other real estate ventures, or the failure to identify a mall by its commercial name, but it does not explain the absence of the generic usage of "mall" or the omission of the county-managed nonprofit Thorn Hill Industrial Park.

If these cartographic biases, which might be regarded as objective, fail to fully explain the discrepancies on these maps, there are also some subjective considerations as well. Maps are driven by motivations other than pure faithfulness to topography and landscape. The naming of places appears to demonstrate this more than other aspects of the map-making process. Discomfort with empty places on maps has waylaid more than one cartographer into creative place naming. Unusual names tend to have more staying power than routine names as a rule. Perhaps more justifiably, cartographers are wary of ephemeral places that might not live to see the next map edition. This
motivation is pragmatic but undercut with nostalgia--certain mapmakers may hesitate to give countenance to what they perceive as the postmodern ruination of a well-ordered landscape. The authors of this paper would surely hesitate before deeming that Timberwood Acres appear in place of Crider's Corners. But if a map is designed to represent a place at a point in time, and it is intended for use by people seeking knowledge about that place, at what point does this cartographic bias begin to erode a map's relevance to the landscape?

Conclusions

Examining the relationship of USGS and USGE-derived commercial maps to Cranberry Township's landscape raises serious questions as to their relevance for current users. While no map is anything better than a selective reality, it is important that the selections made are both accurate and internally consistent. We have seen how rapid landscape change, the introduction of new landscape forms, and an anticommercial bias combine to produce maps that are dissonant with the contemporary landscape. In so doing, they fail to incorporate some of the most important geographies of contemporary life.

References Cited


Cully, Tom (1995). Interview with the authors.


