

HISTORY IN THE MAPPING:
SIMEON DEWITT'S LEGACY IN
NEW YORK STATE CARTOGRAPHY

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ABSTRACT The history of New York State cartography from the post-Revolutionary years into the early nineteenth century exhibits similarities and differences in problems and approaches when compared to the other thirteen original colonies. Accurate surveying and mapping was essential for two related reasons: the new republic was short of funds and needed to raise money, and it had to pay off veterans who had served the length of the war for the promise of land. Mapmakers had some sources to draw on, but information was spotty, recorded at different scales, and suffered from a variety of problems in accuracy. Small scale colonial maps published in Europe, limited traverses surveyed in Revolutionary actions, and more carefully documented land transfers served as the base for the new assessment of land resources. New York State was one of the few states that both appointed a surveyor general and provided funds for the mapping of territory.

Simeon DeWitt accepted appointment as New York's surveyor general in 1784, after the Continental Congress had twice ignored pleas to initiate a nationwide mapping project. He served for over fifty years, and during his administration participated in the boundary survey between New York and Pennsylvania, compiled the first large scale map of the state, directed data collection on climatic variations through local colleges, and provided state support and direction for the production of a State Atlas in 1829, supervised by David Burr. The state map and atlas were widely distributed, providing guidelines for similar projects in other states.

Simeon DeWitt left little personal documentary evidence of his work, so the influence of his long tenure in supervising the cartographic landscape of New York State must be deduced from peripheral evidence, the methodologies revealed by data collection, and the symbolization employed in the state maps created under his supervision. These sources include the vernacular maps and descriptions submitted by town supervisors during the period 1797-98 in response to DeWitt's legislative demand for documentation, the methodologies for collecting data for the 1829 Burr Atlas and revision in 1839, and the evidence of DeWitt's and Burr's maps in embellishing the cartographic landscape of New York with specific historic events.

Cartographic "history" has a significant influence on the contemporary perception of landscape, for the nature of cartographic documentation either promulgates myths about specific places by copying (which reinforces past mapping), or by amendment, changes and reformulates the relationship between the environment and human activity. The influence of Simeon DeWitt in the mapping of New York State from 1784 to 1834 is revealed by methodology, symbolization, and the portrayal of persistent symbols and ephemeral features.

Cartographic historians have long concentrated on charting locational accuracy in examining the changes over time in maps of a particular place. "The history of cartography is largely that of the increase with which the elements of distance and direction are determined and the comprehensiveness of the map content" (Crone, 1953). Geodesy alone does not include the consideration of which symbols are employed, map context and purpose, or consider the overlapping mosaic of different traditions. Since about 1980, changes in this attitude have been called for by J. B. Harley, David Woodward, Denis Wood and Catherine Delano Smith. They appeal for a broader view, to "rediscover" the imbedded meaning in maps by venturing outside easier documentation techniques to hazard an understanding of map messages, identifying common themes and anomalies. "Every map is at once a synthesis of signs and a sign itself: an instrument of depiction--of objects, events and places--and an instrument of persuasion--about these, its makers and itself" (Wood, 1986).

This approach enables maps to be appreciated as cultural artifacts. Maps are a reflection of both past and contemporary influences, and in turn affect the perception of landscape. Maps are inherently conservative, for the information they contain is based on previous maps of the area. New data are only slowly incorporated into the graphic record, so in many ways past myths are reinforced.

How does one attempt to unravel the influence of past and present in a map? It is a complex issue and one fraught with interpretive pitfalls, for the analyst is also laden with cultural baggage. Cartographers seldom leave documentation of their work, and even authorship is often in doubt. While technological breakthroughs in map reproduction mark historic periods, the corresponding beginnings in graphic tradition cannot be easily identified.

An exception is found in American cartography. Mapping in the United States was based on European traditions, but according to Walter Ristow, "A uniquely American school of cartography developed in the productive half century that followed the establishment of peace" (Ristow, 1985). Ristow credits two individuals who contributed much to this development: Thomas Hutchins, who established the rectangular public land survey system, and Simeon De Witt. Simeon DeWitt, New York State's first surveyor general, held office from 1784 to 1834. New York State was one of the few states that both appointed a surveyor general and provided funds for the mapping of territory. Simeon DeWitt's cartography can be traced through his reconnaissance sketches during the Revolution, the two maps he produced of the state, and his supervision of the State Atlas in the 1820s. New York State cartography in this period thus provides an opportunity to examine the development of American cartography from the perspective of map as artifact.

In the colonial period, and during the Revolution, the vast majority of North American maps were published in Europe, mainly by the British and French. Significant contributions were made in colonial mapping by Henry Popple in 1733 (*Map of the British Empire in America with the adjacent French and Spanish Settlements thereto...*), Lewis Evans in 1749 (*Map of Pensilvania, New Jersey, New York, and the Three Delaware Counties*) and 1755 (*General*

Map of the British Middle Colonies in America), Joshua Fry and Peter Jefferson in 1751 (*Map of the Inhabited Part of Virginia Containing the Whole Province of Maryland*), and particularly John Mitchell in 1755 (*Map of the British and French Dominions in North America*) whose map was consulted in negotiating peace in 1782 and 1783. Samuel Holland's 1768 map (*The Provinces of New York and New Jersey with Part of Pensilvania...*) revised by Claude Sauthier in 1776, (*A Map of the Province of New York Reduc'd from the large drawing of that Province*) was used by both sides in the Revolution.

During the Revolutionary struggle, the Americans were seriously hampered by their need to rely on European maps. George Washington complained about the lack of accurate maps in planning campaigns. In 1777, Washington appointed Scottish-born Robert Erskine, with the support of Congress, to the position of geographer and surveyor general to the Continental army. Among the first of Erskine's assistants was Simeon DeWitt, a nephew of James Clinton born in Wawarsing, Ulster County, New York. DeWitt had studied at Queen's College (now Rutgers), volunteered at the outbreak of war, fought at the Battle of Saratoga and then returned home to study surveying and mathematics independently. In 1778, DeWitt became part of the team of surveyors and draftsmen that provided reconnaissance sketches to guide the Revolutionary campaign. Erskine died in 1780 from pneumonia, and DeWitt succeeded him. After the British defeat at Yorktown in 1781 brought military action to a close, the surveyor general's office prepared maps from the rough traverses and sketches made in the field. After the Revolution, DeWitt envisioned that this information could be the basis for new maps. He petitioned Congress twice to sponsor the production of new American maps, integrating the survey information acquired during the war, but lack of funds prevented their support. In 1784, frustrated by the inability of the new federal government to provide either a commitment to the mapping project or payment for his military service, DeWitt accepted the post of surveyor-general to his native state of New York.

The accurate measurement and survey of land was a primary task facing the new republic, especially since veterans who served the length of the war had been promised land for military service and land sales were a major source of state revenue. Simeon DeWitt's two major tasks in the immediate postwar period were surveying the boundary between Pennsylvania and New York during 1786 and 1787 and supervising the division of part of central New York State into townships. New York had secured title to these Indian lands through a series of treaties, and in 1789 passed an act directing the division into townships of 60,000 acres. Moses DeWitt, Simeon's cousin, prepared the maps and numbered the towns. These surveyed townships were subsequently given classical Greek and Roman names by the Land Office, but DeWitt was blamed for years and lampooned in the press as being responsible.

The township surveys were used by Simeon DeWitt in compiling a map of the north-central part of New York State in 1792, which included the new Military Tract. The map has a New York prime meridian and depicts lakes, detailed rivers and streams, the twenty-seven townships (unnamed but divided into numbered lots), Indian reservations and Indian castles, and three roads, one of which crosses Cayuga Lake via a referenced ferry. Outside the Military Tract, into numbered lots), Indian reservations and Indian castles, and three roads, one of which crosses Cayuga Lake via a referenced ferry. Outside the Military Tract,

landowners' names identifying holdings appear, concentrated in the southeastern corner.

The 1792 map was later included as the first sheet of a large six sheet map completed in 1802. The information used to produce this map drew on Revolutionary campaign sketch maps, the boundary survey, published maps, and material gathered by DeWitt from individual township officials. Townships in the southern area of the state had been surveyed before, piecemeal, so supervisors in this part of the state were requested in 1797 to provide maps and narratives of their townships, describing boundaries, notable physical features, inventories of mills, timber and crops, farming and climatic details, as well as information on the number of houses, church denominations, taverns, and the number of doctors, lawyers, ministers, and schoolteachers. The maps were produced by local surveyors and display a wide variety of scales, styles, and symbolization techniques, illustrating the lack of consensus about what should be included or excluded from these documents. The descriptions provide a valuable historic record of contemporary farming practices and insights into community life.

The large 1802 roll map also has a New York Prime Meridian, with marginal notes on longitude distance to Philadelphia, Washington, and Greenwich and the scale is given as "69 miles to a degree." It depicts townships, rivers, lakes, settlements, roads, Indian castles, occasional swamps, iron works, and mills. The topography (confined to the southern end of the state) illustrates DeWitt's skill in the perspective portrayal of relief features. DeWitt considered perspective to be an essential part of a good education (for both men and women) and wrote a pamphlet detailing its technique and describing drafting equipment that could be made to aid in creating perspective drawings. (DeWitt, 1813).

In 1803 the New York State Senate resolved that a copy of this map, one of the first American-produced, officially sponsored state maps should be sent to each State governor. In 1804 DeWitt drew a smaller scale "contraction" of the map including the same features. This map was DeWitt's last direct cartographic contribution, but he continued to supervise state mapping projects, including the 1811 plan for New York City and the surveys for the Erie Canal, until his death in 1834.

DeWitt provided official sponsorship and supervision in the production of David H. Burr's map and Atlas of the State of New York, dated 1829, but probably not published until early in 1830 when DeWitt reported on their completion to the legislature (New York Legislative Documents, 1930). The Atlas contains fifty-two maps, detailing for each county roads, rivers, canals, railroads, settlements, churches, mills, forges and manufactories, swamps, some relief (depicted by hachures), and occasional references to land ownership and historic events. In compiling the cartographic material, circular letters were sent to the supervisors of each town to request corrections of draft maps.

A revised and updated edition of the Atlas was published in 1839, with agents providing local field-checking. The collection of revised maps from supervisors must have proved to be too unreliable. This can be deduced from the letters that accompanied revised draft maps, apologizing for delays in response and blaming the mail, press of work, or complaining that the small scale made

accurate correction impossible. The 1829 edition was engraved by Rawdon Clark and Company of New York City and Albany, while the 1839 edition credits Stone and Clark of Ithaca as "Republishers." Burr's Atlas was the second American state atlas, Robert Mills having produced the *Atlas of the State of South Carolina* in 1825. New York was unusual in providing state support for this mapping project. During the first hundred years after the Revolution, most of the maps in the United States were produced by small commercial publishers. Some maps were drawn, engraved and published by individuals, often trained in other professions. While some projects enjoyed official encouragement and occasional financial assistance, many others were undertaken at personal risk.

Although Simeon DeWitt left little personal documentary evidence of his work, the influence of his long tenure in supervising the cartographic landscape of New York State can be deduced from peripheral evidence, the methodologies revealed by data collection, and the symbolization employed in the State maps created under his supervision. These sources include the vernacular maps and descriptions submitted by town supervisors during the period 1797-98 in response to DeWitt's legislative demand for documentation, the methodologies for collecting data for the 1829 Burr Atlas and revision in 1839, and the evidence of Burr's maps in embellishing the cartographic landscape of New York with specific historic events. DeWitt's close supervision can be deduced from the introduction to the 1829 Atlas where Burr notes DeWitt "engaged with ardor" using the revised maps returned to his office which enabled him "with his previous knowledge to correct such errors as had escaped the observation of the author."

DeWitt's revolutionary sketches reveal the influence of his original mentor Robert Erskine. These sketches vary from simple traverses to maps obviously created in several stages, as different inks can be detected on the original. The sketches use hachures to depict relief and concentric isobaths in rivers and lakes, a long accepted military and civilian convention. The majority of the symbolization used (e.g. for mills and forts, is derived from British military tradition. (See Wilme, 1846.) In the 1792 map features are limited, so stylistic details are not so obvious. DeWitt adopted the practice of using tents to show Indian Castles, found also in British reconnaissance sketches.

DeWitt's interest in perspective led him to use this technique in the 1802 and 1804 map to show relief features. The mountains and hills are meticulously drawn, with shading on the western slopes. This shading technique does not follow the then accepted European practice of darkening the south-east slopes. The positioning and style of topographic features are reminiscent of 1733 Popple map. The detail in both of these maps is far greater in the area of the Revolutionary campaigns in the Hudson Highlands, which dominate this area of the map. The Adirondack area is almost empty, while the north central area in the Military Tract only appears more detailed because of the gridded townships. The extent of detail reflects the extent of information about surveyed territory. Landowners' names identify tracts, and reinforce the settlement of the cartographic landscape. Above all, rivers dominate the map as river transport dominated the economy.

In the Burr Atlas, the division of the whole state into counties reinforced their political identity. Unlike the DeWitt maps, which have no keys,

extensive keys to features are given, adding churches, manufactories, canals and railroads to the list. Scale is given in graphic form, as approximately two miles to the inch. The depiction of settlements as black bars follows the conventions DeWitt used in his Revolutionary sketches. Economic linkages and industrial activity dominate the landscape in the more developed counties. The inclusion of mapped features parallels their importance in the development of the State.

The most interesting feature is the location of historic events in the Revolutionary War and 1812 War, showing key battle sites or notable events. In the 1839 Burr Atlas revision there is a complete legend and noted locations for Major Andre's mission, capture and final hanging in the Orange and Rockland county map. These historic additions to the map are significant departure from the spare tradition of solely locating physical features. They tie history to place, and endure in subsequent maps of New York State.

Cartographic images are compact condensations of a particular time and culture, a complex amalgam of signs, symbols, and traditions. In the invisible system of cartography the myth of visual representation becomes accepted as a system of facts. But a map itself "is a cultural artifact, a culmination of choices made among choices, every one of which one of which reveals a value" (Wood, 1986). While the overt code may be "explained" in a key, the evidence of the arrangement and choice of symbols and objects signified (or not signified) conveys the meaning embedded the map. Intention, purpose, shapes the whole. This view permits a reviewing of cartographic history, placing the focus on vernacular context and cultural tradition.

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