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Source: *Geographical Review*, Jul., 1987, Vol. 77, No. 3 (Jul., 1987), pp. 261-278

Published by: Taylor & Francis, Ltd.

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# The Geographical Review

VOLUME 77

July 1987

NUMBER 3

## 19TH-CENTURY LAND LAW AND CURRENT LANDOWNERSHIP PATTERNS\*

JANEL M. CURRY-ROPER

**ABSTRACT.** *This article focuses on relationships between 19th-century public-land laws and current patterns of landownership. A three-tiered—national, state, and local—analysis examines changes in landownership. Beliefs about resources and their uses are the context for land policy and legislation. Interaction of law provisions and supply/demand produced initial patterns of landownership at the regional scale. At the local scale the initial ownership complex evolved into new associations and provided impetus for future policy directions.*

THE study of the public-land laws of the United States has generally focused on their legislative history, their initial operation, or their managerial directives. In this article the focus is the components of public policy in the ideological, legal, historical, and spatial contexts in which landownership patterns evolved. I have chosen to apply this integrative form of analysis to the effects of the Timber and Stone Act on landownership in northern Minnesota. That act had a tremendous effect on timberland ownership in a relatively short period of time. By 1923 the provisions of this law had been used to shift twelve million acres of timberland from the public domain into private ownership.<sup>1</sup> I chose this law because areas of entries under it are now a complex mixture of private, state, and federal parcels. This landownership pattern evolved through interplay among these three types of owners, an interaction that is analyzed in this study.

### METHODOLOGY

Scale is the basis of the methodology used to examine the effects of public-land laws on current ownership patterns. I first describe the national ideological or fiducial context for decisions as well as the congressional actions that translated those beliefs into law. Then I detail the patterns of ownership

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\* I thank Roderick H. Squires, Philip J. Gersmehl, and Judy Jacobi for their assistance with this article.

<sup>1</sup> Benjamin H. Hibbard, *A History of the Public Land Policies* (Madison: University of Wisconsin Press, 1924), 469.

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resulting from implementation of laws. Finally I trace the changes in ownership at the local level after the initial pattern was established.

All laws and policies are formulated in a context of public opinion and are constrained by legal precedents. Public-land laws are federal legislative statements of beliefs about resources, ownership rights, and the public good. The economic and social conditions that produce these elements change over time. Even the elements that seem unchangeable because of constitutional principles are alterable by amendment or judicial interpretation. For example, initially the federal government did not have the right to protect its timberlands from depredation, because judicial interpretation of federal ownership rights was that governmental lands remained commons. Eventually the courts gave the federal government the same rights of ownership afforded to individuals—the power of exclusion.<sup>2</sup> Congressional intents can also be changed by rules for administration and enforcement established by the Department of the Interior.

The initial pattern of ownership in any place comes from the interaction between two forces. The first is the laws, created from the fiducial context of beliefs, that provide the mechanisms for obtaining land. The second is the economic factors of supply and demand. Provisions of a particular law influence initial ownership characteristics like parcel size or residency and the type of land available for purchase; however, supply of available land, its location relative to markets, and demand for products from it affect the actual distribution of lands purchased under provisions of a specific law. Some laws offered competitive advantages to purchasers of land and affected ownership distribution; states also competed for land as they attempted to take advantage of opportunities created by federal legislation and policies. One such example was the selection of land by a state under federal laws that granted acreage to finance schools or internal improvements.

Beliefs and economic conditions in which a law is embedded may change during its lifetime. The changes cause purchasers of land under a specific law to transfer ownership as they respond to altering conditions. The consequences of the transfers can be evaluated only by examining the discrete ownership changes for individual parcels at the local level. The approach used here begins with the broad national ideological context and ends with decisions made by individual landowners.

Over the years varying economic and social conditions return the processes of changing landownership back to the federal level, where Congress and the president initiate new directions in policy. New policies again emerge from a context of public opinion about land resources and ownership rights, but this new stage has two parallel streams of thought, the context and the newly initiated direction, each of which has its separate legislation. The

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<sup>2</sup> Official Opinions of the Attorneys General (edited by Benjamin F. Hall; Washington, D.C.: Robert Farnham, 1852), Vol. 1, 471–473.

difference between the original disposition of public land and subsequent policy eras is that patterns emerging from the former place important constraints on all later land-tract decisions. At the local level decisions to achieve specific outcomes involve many participants, for example, federal and state governments, individuals, and corporations. Each group is subjected to different constraints, and all decisions are extremely site specific. The core of my methodology for analysis is the integration of individual, state, and federal actions as well as economic changes into an explanation of land-ownership change and current patterns of ownership at the local level. This pattern and its explanation become the context in which governmental managerial agencies and individuals make future decisions.

### BELIEFS ABOUT FOREST RESOURCES

Present-day ownership patterns of timberlands in the United States result from decisions made by the federal government, state governments, and private parties during the 200-year history of the country. The decisions were associated with changes in the public's concerns about forest resources and in its attitudes toward public ownership of land. Well into the nineteenth century the public generally accepted the belief that private ownership of timberlands ensured their best use. Numerous factors reinforced that belief. Firstly, forests were abundant, and timber resources were perceived as being inexhaustible. Furthermore most individuals thought that trees regenerated quickly and grew on generally fertile soils that would produce crops after clearing.<sup>3</sup> Partially in response to such beliefs, Congress allowed millions of acres of timberland to pass into private ownership through various laws, among them the Timber and Stone Act that is the focus of this study.

By the middle of the nineteenth century, some persons questioned the accepted beliefs about timberland. They began to realize that forests were limited and served noneconomic purposes like stream-flow regulation and soil protection.<sup>4</sup> Those persons were joined by romantics and transcendentalists of the period who were concerned about the spiritual loss that came from forest destruction, although the total number of concerned individuals remained small.<sup>5</sup>

Public attitudes changed dramatically after the publication of "Man and Nature, or Physical Geography as Modified by Human Action" by George Perkins Marsh in 1864. In that book Marsh documented the importance of forests to climate, water supply, and soil fertility, and he described catastro-

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<sup>3</sup> James Willard Hurst, *The Institutional Environment of the Logging Era in Wisconsin*, in *The Great Lakes: An Environmental and Social History* (edited by Susan L. Flader; Minneapolis: University of Minnesota Press, 1983), 137.

<sup>4</sup> Daniel Browne, *Sylva Americana* (Boston: William Hyde, 1832); U.S. Department of Agriculture, 1865 Annual Report (Washington, D.C.: Government Printing Office, 1866), 210.

<sup>5</sup> Roderick Nash, *Wilderness and the American Mind* (New Haven: Yale University Press, 3rd ed., 1982).

phes caused by forest destruction in various parts of the world.<sup>6</sup> His observations had immediate effect. Congressmen quoted him, and magazines printed excerpts from the book. Many easterners began to reconsider their viewpoints on the importance of forests and to redefine their interest in timberlands. In the West, however, the requirements of lumber to advance settlement remained a high priority.

Congress passed the Timber and Stone Act in 1878 during that transitional period for beliefs about forests. Under the provisions of the act, public timberland was sold in California, Oregon, Nevada, and Washington in 160-acre tracts at a price of no less than \$2.50 an acre.<sup>7</sup> The law was extended to all public-land states in 1892.<sup>8</sup> Passage of that act was justified on two counts: to protect forests and to provide for their use. Congressmen argued that private owners would protect the timberlands, something that the federal government had failed to do in a century or more of legislation, and that the law would allow settlers to obtain needed lumber.

The Timber and Stone Act was also instituted at a pivotal period in the development of forest management. Congressmen, the secretary of the interior, the commissioner of the General Land Office, and private organizations had proposed appraisal of forest lands and actual reservation and management of timberlands. The Department of the Interior increased its resolve to enforce laws that protected timberlands, and public opinion, even in western states, supported the policy shift in part to avoid a timber shortage.

Pressure to protect and manage forests culminated in an 1891 law that gave the president authority to create forest reserves to ensure timber production and to regulate stream flow.<sup>9</sup> The creation of these reserves instituted a new era for land policy during which the federal government retained title to the land. In general, the states followed the federal example and created state forests from previously granted federal lands. The basic belief had become that public, not private, ownership ensured the best use of the resources. Thus a second and new policy direction—retaining forest lands—was initiated; however, previous laws, based on the former policy of selling timberlands, were not repealed.

The continual disposal of timberlands under the Timber and Stone Act shifted millions of acres of federal timberlands to private ownership. With the passage of the Weeks Act in 1911, Congress instituted yet another policy that allowed repurchase of timberlands to expand the federal forest system.<sup>10</sup> The Weeks Act allowed the repurchase of alienated lands. At the same time, extensive cutting on private land had created cutover areas that numbered

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<sup>6</sup> George Perkins Marsh, *Man and Nature* (Cambridge, Mass.: Harvard University Press, 1965 [originally published 1864]); David Lowenthal, *George Perkins Marsh: Versatile Vermonter* (New York: Columbia University Press, 1958), 246–276.

<sup>7</sup> *United States Statutes at Large*, Vol. 20, 89.

<sup>8</sup> *United States Statutes at Large*, Vol. 27, 348.

<sup>9</sup> *United States Statutes at Large*, Vol. 26, 1093.

<sup>10</sup> *United States Statutes at Large*, Vol. 36, 961.

in the millions of acres. After the cutting, private owners attempted to sell the land for agricultural use. Agriculture was not commercially viable, and many titles reverted to the states when owners abandoned the tracts. Only when state authorities finally realized that the areas were not suitable for agriculture were appropriate policies designed for the management of the forfeited lands.

#### GEOGRAPHICAL PATTERN

The geographical pattern of entries under the Timber and Stone Act reflected national and regional changes in supply and demand for timberlands. Actions by the federal government influenced both the availability and the demand for land under the act. From 1878 to 1892 it was effective only in the Pacific Northwest, but many sections there were withheld from the market for years because of slow surveying in forested areas. Federal reservation of timberlands for national forests further reduced the availability of lands open for entry under the law. The pricing also affected the supply. The act set a minimum price of land at \$2.50 an acre, but the General Land Office interpreted that provision to mean that \$2.50 an acre was the only price, an interpretation that remained in force for thirty years.<sup>11</sup> The effect of the low price was to produce a large profit for the original purchasers who quickly sold land or timber for a much higher price.

Increased prices for timber products, a reflection of the changing supply and demand, periodically encouraged additional purchases of timberlands and expansion of lumbering activities. Demand for the land was augmented by population increases in specific areas and by generally improved economic conditions across the country. A high price offered more profit to purchasers of timberlands, so entries under the act rose in response to increases (Fig. 1). According to land-district officials, the relationship between timber prices and purchases of Timber and Stone Act lands was so close that entries rose and fell with prices within any one year.<sup>12</sup>

The Duluth Land District is the case study for a specific analysis of the interaction of these factors. Before the panic of 1893, there had been intense congressional debates about forest preservation and sale or free use of public timber by settlers. Legislation had been passed to meet both goals. For example, by 1876 forest lands in the South were open to private entry.<sup>13</sup> In 1891 preemption was repealed, public auctions were disallowed, and the president was given authority to create forest reserves—all measures to preserve timberlands. At the same time, Congress allowed free use of public timber in the Rocky Mountain states through a licensing system.<sup>14</sup> The

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<sup>11</sup> U.S. Department of the Interior, *Land Decisions* 37 (1908): 289–311.

<sup>12</sup> U.S. General Land Office, 1888 Annual Report (Washington, D.C.: Government Printing Office, 1889), 63.

<sup>13</sup> *United States Statutes at Large*, Vol. 19, 73.

<sup>14</sup> *United States Statutes at Large*, Vol. 26, 1095–1099.

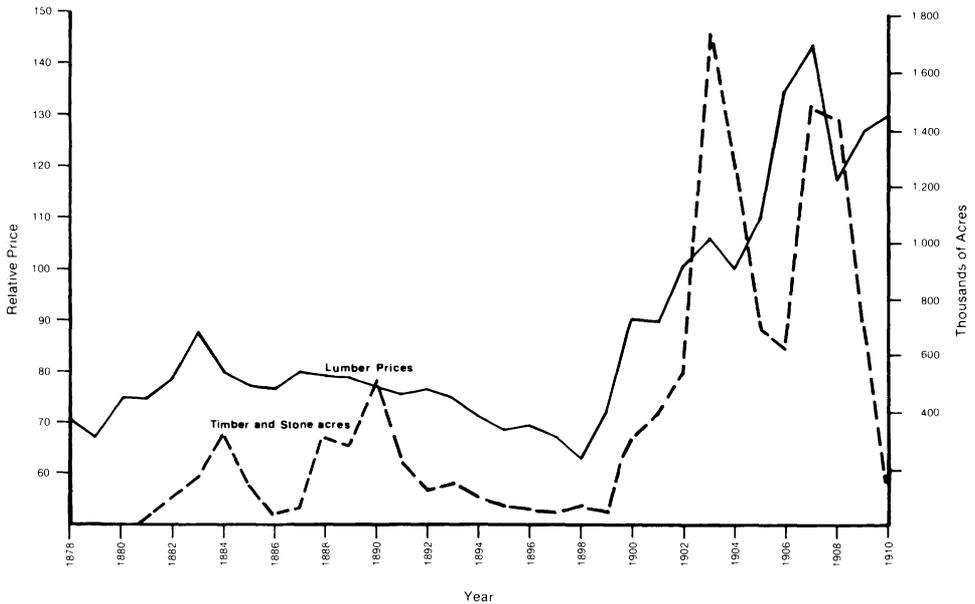


FIG. 1—Acreage and relative lumber prices 1878–1910. Acreage figures collected on a fiscal year ending June 30; price base of 100 from the average price 1901–1903. *Source:* Wilson Compton, *The Organization of the Lumber Industry* (Chicago: American Lumberman, 1916), Appendix II.

Timber and Stone Act was extended to all public-land states in 1892.<sup>15</sup> The supply of timberlands diminished as forested areas were reserved, but unreserved sections were further opened to entry and use under other laws.

The ambiguity of congressional attitudes toward public timberlands was particularly evident when the Timber and Stone Act was extended to all public-land states. That extension brought the provisions of this act into competition with uses by settlers authorized under other timber laws. For example, the effect of the act on the South was negligible because federal legislation in 1876 allowed individuals to purchase timberlands there for \$1.25 an acre, half the price stated in the Timber and Stone Act. The licensing law of 1891 was applicable only in the Rocky Mountain states, but allowing free use of timber undercut implementation of the provisions of the Timber and Stone Act. The only significant forested areas not available under any law except the Timber and Stone Act were in the Great Lakes region. By 1892 lumbermen had cut over much of Wisconsin and Michigan, and only in Minnesota were timber supplies competitive with those in the Pacific Northwest for entry under the Timber and Stone Act. The available acreage was further concentrated in Minnesota within the Duluth Land District, where more than 70 percent of all the Timber and Stone Act acreage obtained in the state between 1892 and 1910 was located.<sup>16</sup>

<sup>15</sup> *United States Statutes at Large*, footnote 8 above.

<sup>16</sup> Data compiled from annual reports of the General Land Office 1892–1910, published by the Government Printing Office between 1893 and 1911.

The decline of entries in the Pacific Northwest contrasted with their increased number in Minnesota during the depression years of the mid-1890s. The entries in the Duluth district rose to more than 72,000 acres, or 48 percent of the national total, in 1894, although entries in other states decreased.<sup>17</sup> Several factors explain this pattern in the midst of a depression. By 1892 the Duluth district, surpassing timber production in Wisconsin, had become the main lumber source for eastern markets. Supplying that market enabled the district to withstand many effects of the panic of 1893 and to increase timber exports during the subsequent depression. An important factor was lowered freight rates through the Great Lakes to the principal east-coast distribution centers.<sup>18</sup> The local market also expanded. The population of Duluth increased by 80 percent between 1890 and 1895, largely as a result of the discovery and the development of the Mesabi range. Construction of port facilities at Duluth and of railroad tracks from there to the newly discovered iron-ore range created a huge demand for lumber.<sup>19</sup>

Federal restriction of the supply of timber before 1892 contributed to the surge of entries under the act in Minnesota. The last general public auction in the Duluth district was held in December 1882; access by private entry to tracts that did not sell at a public auction ended on 2 March 1889.<sup>20</sup> Entry of timberlands was further limited in 1891 with the repeal of preemption laws and the disallowance of auctions.<sup>21</sup> Before the extension of the Timber and Stone Act, settlers in some territories and states could obtain title to timberlands only through the provisions of homestead and preemption laws or by using scrip.

Lumbermen were at a disadvantage in using provisions of the Homestead Act to obtain timberlands, because it required a prospective owner to cultivate the land. The courts had ruled that timber could be cut from homestead claims only for improvements required by the law until title was obtained.<sup>22</sup> The Homestead Act and that ruling together required a five-year residency before a settler could gain title and could cut the timber. In contrast, residency was not required for an entry under the Timber and Stone Act. Entries surged when the act was extended to Minnesota because of accumulated demands for timberlands caused by restrictive legislation. In contrast with the Rocky Mountain states, no competing federal laws like the licensing act that allowed free use of timberlands applied to the Great Lakes region.

During the last quarter of 1897, the United States began to recover from the depression. Stock and commodity prices rose along with wages. Demand for lumber increased to meet needs to repair the neglect during the depression

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<sup>17</sup> Data compiled from annual reports of the General Land Office 1880–1900, published by the Government Printing Office between 1881 and 1901.

<sup>18</sup> Agnes M. Larson, *History of the White Pine Industry in Minnesota* (Minneapolis: University of Minnesota Press, 1949), 253–254.

<sup>19</sup> Larson, footnote 18 above, 256–257.

<sup>20</sup> *United States Statutes at Large*, Vol. 25, 854.

<sup>21</sup> *United States Statutes at Large*, Vol. 26, 1095–1099.

<sup>22</sup> *Official Opinions*, footnote 2 above, Vol. 4, 221–223.

and new expansion in housing, industry, and transportation.<sup>23</sup> Responding to those demands, the price of lumber rose in 1898 and 1899, but it soared in the first half of 1900.<sup>24</sup> The number of Timber and Stone Act acres purchased by individuals throughout the country between 1899 and 1908 generally followed the changes in the price of lumber. However, the Duluth Land District declined in importance because of decreased timber supplies and the increased demand for timber in the West.

By 1909 entries under the Timber and Stone Act were declining in all land districts as new rules and regulations of the Department of the Interior came into effect. The department required payment of an appraised price rather than a flat rate of \$2.50 an acre. In 1910 only 170,989 acres were entered in the entire country, a sharp contrast with the more than one million acres that had been entered less than two years previously. Not only had demand dropped, but also the actual supply of land open to entry by individuals had greatly diminished as more and more timberlands were included in national forests. More than 167 million acres of land at one time open to entry under the Timber and Stone Act had been included in national forests.<sup>25</sup>

From the interplay of changing federal legislation and supply and demand for land came associations of landownership categories at a regional scale. Again I use the example of the Duluth Land District to illustrate the interactions. The distributions of Timber and Stone Act entries in the district followed the national trend by reflecting supply and demand for timberlands. The same forces early associated lands obtained through this law with areas retained by federal and state governments.

The act was extended to Minnesota at a time when the federal government began to implement its new policies and to create national forests. The Superior National Forest was established in the district, because large intact blocks of federal land resulting from slow surveying were available for retention. The reservation of lands for this national forest concentrated the Timber and Stone Act lands in adjacent areas. The late surveying also created a large supply of timberland available only after the extension of the act to Minnesota.

State lands, obtained through federal grants, were also adjacent to the national forest. They were located here because the region surrounding it was at the furthest reaches of settlement and had not been purchased by private parties when the state selected the locations for its grants. In other areas state lands were quickly sold, but they were retained along the forest margins because their price was above the \$2.50 value in the Timber and Stone Act. State lands could not be sold for less than \$5.00 an acre plus

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<sup>23</sup> Harold U. Faulkner, *The Decline of Laissez Faire: 1897-1917* (New York: Rinehart, 1951), 6-7, 24-25.

<sup>24</sup> U.S. Department of Commerce, Bureau of Corporations, *The Lumber Industry* (Washington, D.C.: Government Printing Office, 1914), 4:47.

<sup>25</sup> U.S. Department of Agriculture, *1908 Annual Report* (Washington, D.C.: Government Printing Office, 1909), 414.

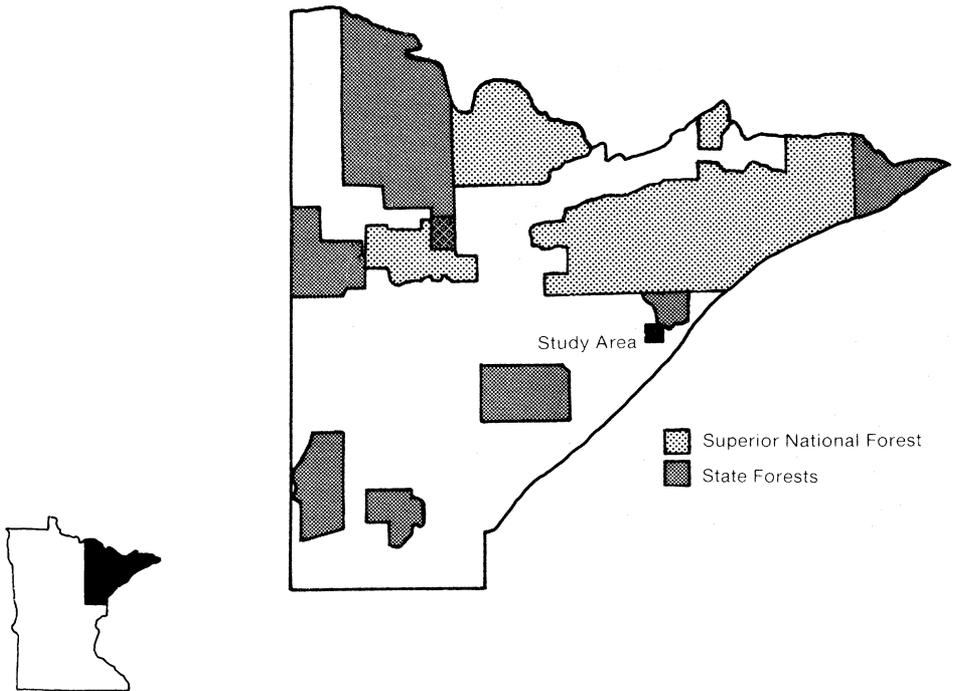


FIG. 2—Duluth Land District 1934. *Source:* Minnesota Commission of Conservation, Second Biennial Report 1933–34, St. Paul, 1934, 74.

appraised value of the timber.<sup>26</sup> The complex interaction of changing policies, supply, and demand created associations among ownership types at the regional scale. In the Duluth Land District, retention of state lands was associated with Timber and Stone Act acreages, and both types of land were linked with the expanding margins of a national forest.

#### LOCAL EFFECTS OF THE ACT

The provisions of the Timber and Stone Act affected characteristics of initial landownership at the local level. Conditions in four townships in Lake County, Minnesota, illustrate the effects of the law and are the case study to analyze the stages of ownership after initial entry under the act. The study area comprises townships 57 and 58, ranges 8 and 9, land within the band of dense Timber and Stone Act entries adjacent to Superior National Forest (Fig. 2).

These townships were opened to entry after 1900, when demand for timber products was increasing. Individuals purchased most of the more than 50,000 acres under the act on the first days that entry was possible. This total represented approximately 84 percent of the available federal land in the townships. The federal government had granted the state 31,890 acres,

<sup>26</sup> Minnesota, Laws of 1863, Chapter 12.

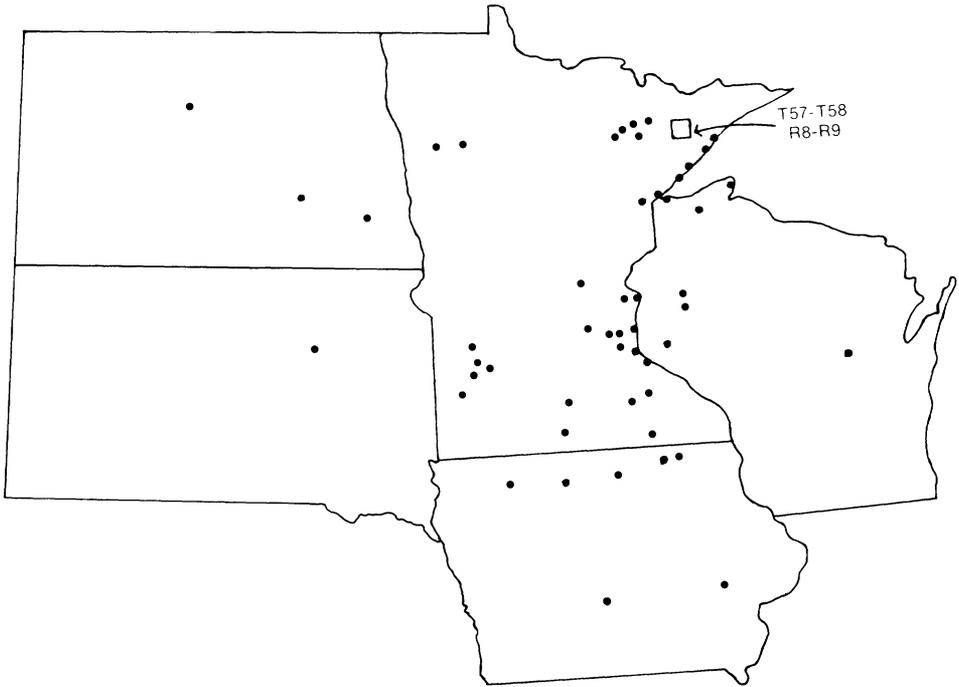


FIG. 3—Origins of purchasers of Timber and Stone Act land in sample townships. *Source:* Compiled by author from data in General Land Office patent books, Minnesota Historical Society, St. Paul.

or almost one-third of the gross area, as Swamp Act land and as indemnity-school land before alienation was allowed under the Timber and Stone Act.<sup>27</sup> The state lands were placed in a permanent trust to support schools and were never sold because of underpricing caused by provisions of the Timber and Stone Act.<sup>28</sup>

The act limited the size of parcels at initial entry to 160 acres an individual; however, the actual size of entries varied over time. On the opening days of entry, the average size of entries in the four townships was larger than later, a trend that was also apparent elsewhere in the state. Also parcels purchased when size was largest were more contiguous than tracts bought later.<sup>29</sup> The relationship was that individuals bought timberland primarily for their own use, or at least not in collusion with other persons, during times of low timber prices. In contrast, when prices were high, individuals might have obtained timberland for companies or in concert with other persons in the expectation of selling the tracts to firms.

<sup>27</sup> U.S. General Land Office, *Minnesota Tract Books and Plats, Townships 57-58, Ranges 8-9* (Minnesota Department of Natural Resources, St. Paul).

<sup>28</sup> Minnesota, *Laws of 1863, Chapter 62*; Minnesota, *Constitutional Amendment, Article VIII, Section 2, Part 4, 1881*.

<sup>29</sup> Janel M. Curry-Roper, *A Historical Geography of Land Ownership in Minnesota: The Influence of the Timber and Stone Act* (unpublished Ph.D. dissertation, Department of Geography, University of Minnesota, Minneapolis, 1985), 146.

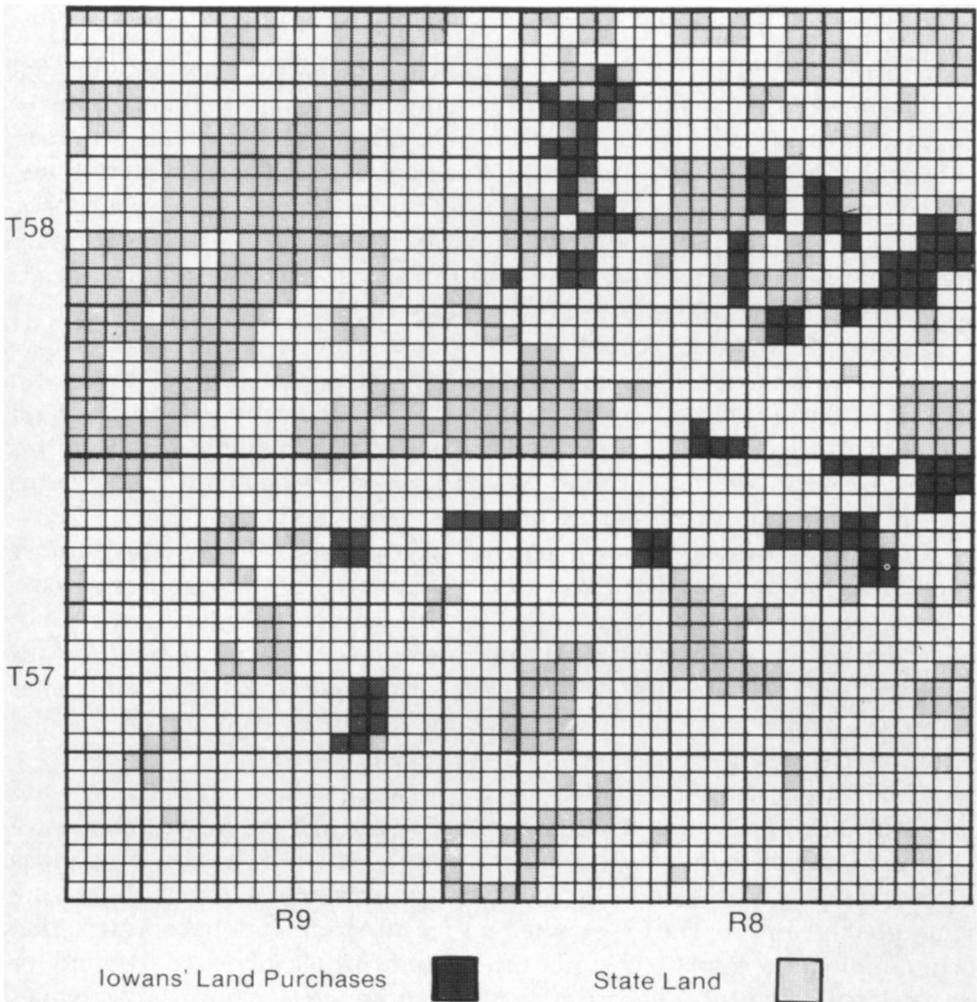


FIG. 4—Timber and Stone Act acreage purchased by Iowa residents. *Source:* Compiled by author from data in General Land Office patent books, Minnesota Historical Society, St. Paul.

The Timber and Stone Act was unusual because it had no residency requirement for entry. Most purchasers in the four townships came from towns in the area or from nearby large population centers. Other Minnesota purchasers were scattered throughout the state (Fig. 3). In contrast, thirty purchasers came from only seven towns in Iowa, a fact that supports the assertion of a relationship between high demand and collusion in simultaneous entries of contiguous large tracts (Fig. 4). In spite of the 160-acre maximum, individuals from great distances cooperated to obtain consolidated tracts. The holdings of the Iowa residents persisted as a block through several changes of ownership and became part of the holdings of the United States Steel Corporation in the 1960s.<sup>30</sup>

<sup>30</sup> Lake County, Minnesota, Deed Records (Two Harbors).

## RATIONALIZING OWNERSHIP PATTERNS

Federal patents gave individuals complete title to Timber and Stone Act land. The persons owned the land in fee simple, which gave them exclusive right to possess and dispose of all or part of the tract, including timber, subsurface rights, and the land itself. Such rights of possession were transferred from initial owners to others by a deed of conveyance. Three categories of deeds were used in the four townships: deeds that transferred only timber rights, deeds that transferred land and timber as a single unit, and deeds that conveyed land title but reserved timber rights.

Although individuals could and did transfer property rights, the nature of fee-simple ownership was restricted by the interests of counties and states in a tract. These interests included powers to tax real property, to take land for public use, and to regulate land use. Some land reverted to a state for nonpayment of taxes; other land was purchased and remained in governmental ownership for public use and welfare as forests.

Decisions by owners to sell part or all of their rights and for lumber companies to buy them were based on perceptions of opportunities to maximize profit through economies of scale. The Timber and Stone Act did not allow parcel size to vary with market conditions, so the movement toward economies of scale could not occur with initial entries. Lumber companies competed against one another in bidding up prices paid to the original entrants in order to increase economies of scale.

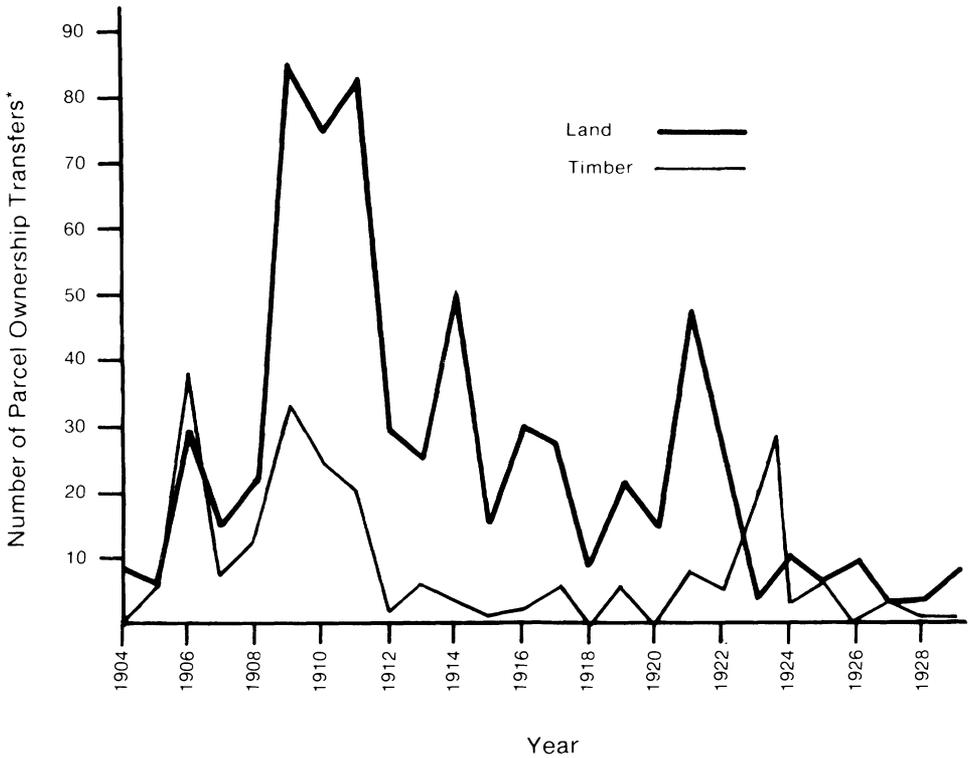
The first phase of title transfers in the four townships began in 1904 and lasted until 1911. The largest number of title transfers occurred in that era of high timber prices and sales (Fig. 5). At a time when the lumber companies were acquiring timberland, the federal government was also withdrawing land directly north of the four townships for Superior National Forest.<sup>31</sup> That action limited the supply of virgin timber and further increased demand for timberlands. Unable to obtain timber tracts under the law, lumber companies bought them from original entrants. Timber deeds contained a striking form of indirect evidence of the value that the resource added to the land. The owner of the timber rights, not the landowner, usually paid the taxes on the property until the timber was cut.

The Duluth and Northern Minnesota Railroad, a logging road, reached the study area in 1911, when commercial logging began. Timbered land and cutting rights were consolidated in anticipation of railroad construction. The number of owners had decreased from 374 to 223, and the size of holdings had increased. The proportion of corporate ownership of the original tracts rose from zero in 1904 to more than one-third in 1911. During that early stage of lumbering, seven owners, each of whom held more than ten original tracts, controlled 77 percent of the timber resources on the original entries.<sup>32</sup>

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<sup>31</sup> U.S. General Land Office, footnote 27 above.

<sup>32</sup> Lake County, footnote 30 above.



\*Parcel ownership transfer is defined as the conveyance of one Timber and Stone tract from one individual to another.

FIG. 5—Ownership transfers of original Timber and Stone Act parcels. *Source:* Compiled by author from data in Lake County deed records, Two Harbors.

Lumbering had almost ended by 1914 and was replaced by efforts to settle the cutover land. The second phase of transfers focused on the value of land for agricultural settlement, in which the American populace seemed to have undying faith. Land companies replaced lumber firms as the chief purchasers of land: Northern Finance Corporation, Scribner-Kelly Land Company, Minnesota Land and Development Company, and Northern Minnesota Land Company, to name only a few. Those firms obtained land from lumber companies after timber had been cut. Expanding agricultural settlement and land speculation before World War I raised the price of cutover lands but slowed the trend toward consolidation.

Another change in economic conditions produced a third trend in land-ownership transfers in the four townships by the late 1910s. Before 1910 paper and pulp mills tended to locate close to their markets; after 1910 the increased size of plants led to selection of sites based on extensive forest surveys and an optimal location near timber resources.<sup>33</sup> That locational shift

<sup>33</sup> Helen Hunter, *Innovation, Competition, and Locational Changes in the Pulp and Paper Industry: 1880–1950*, *Land Economics* 31 (1955): 315, 320.

came as prices for pulpwood were rising from \$5.00 a cord in 1905 to more than \$20.00 in 1920. Production expanded in response to the price increase and the relocation of the industry. Those changes ushered in the second phase of lumbering for Minnesota forests, where companies concentrated on cutting jack pine for pulpwood.<sup>34</sup> Evidence of that trend included the sale of land by the Scott-Graff Lumber Company to the Wisconsin River Paper and Pulp Company and the North Star Company as well as the emergence of other paper and pulp firms in the four townships.

#### FEDERAL AND STATE INFLUENCES ON LOCAL LANDOWNERSHIP

In 1911 Congress passed the Weeks Act, which established the National Forest Reservation Commission and authorized it to purchase forest lands from private owners to protect watersheds and stream flows. That act was amended in 1924 so that the commission could also purchase lands suitable for timber production.<sup>35</sup> By 1926 a purchasing unit had been established for Superior National Forest.<sup>36</sup> Purchases of private land in the unit, including the four townships, began in 1929.

A widespread economic depression also began that year, and private owners of cutover land defaulted on property taxes. The forfeitures caused acute distress in communities that depended on revenues from those taxes to provide public services. Consequently public support for federal acquisition of cutover lands was strong in these counties, because the federal government gave one-quarter of its forest-production receipts to them.<sup>37</sup>

The federal government had sold timberlands to individuals in the area almost entirely under the provisions of the Timber and Stone Act. By the provisions of the Weeks Act and its amendment, the federal government acquired land usually without timber that had previously been sold under the Timber and Stone Act. The inevitable result was a chaotic mixture of state and federal ownerships. To mitigate the problem, Congress in 1939 authorized the commission to purchase lands for the sole purpose of exchanging them for state-owned tracts to consolidate state and federal holdings.<sup>38</sup> While federal purchases increased, titles to delinquent lands reverted to the state.<sup>39</sup> A precipitous increase in tax delinquency was under way by the mid 1920s and early 1930s. On 31 January 1931, more than 6.8 million acres in Minnesota were tax-delinquent; more than 95 percent of that acreage was in the cutover portion of the state.<sup>40</sup>

<sup>34</sup> U.S. Bureau of the Census, *Statistical Abstract of the United States, 1938* (Washington, D.C.: Government Printing Office, 1939), 697; *Statistical Abstract of the United States, 1942* (Washington, D.C.: Government Printing Office, 1943), 827.

<sup>35</sup> *United States Statutes at Large*, Vol. 36, 961, and Vol. 43, 653.

<sup>36</sup> U.S. National Forest Reservation Commission, *1926 Annual Report* (Washington, D.C.: Government Printing Office, 1927), 1.

<sup>37</sup> U.S. National Forest Reservation Commission, *1932 Annual Report* (Washington, D.C.: Government Printing Office, 1933), 35.

<sup>38</sup> *United States Statutes at Large*, Vol. 49, 963.

<sup>39</sup> Minnesota, *Laws of 1899*, Chapter 322.

<sup>40</sup> Minnesota Committee on Land Utilization, *Land Utilization in Minnesota: A State Program for the Cut-over Lands* (Minneapolis: University of Minnesota Press, 1934), 17.

As the state began to recognize the limitations of the cutover lands, officials developed managerial plans for forfeited parcels. Title to the tracts remained with the state, but counties were assigned portions to manage.<sup>41</sup> The forestry division in the Department of Conservation managed other forfeited tracts. One goal of the division was to increase the long-term production from forests.<sup>42</sup> To achieve this goal, the state established several forests on its land-grant and tax-forfeited tracts between 1933 and 1935. Finland State Forest included the four sample townships. Competition with sales under the Timber and Stone Act left state land unsold there, and federal purchases in the 1930s kept forfeiture at a minimum. The region was thus optimal for the site of a state forest. The original association of Timber and Stone Act lands with state parcels and the adjacent national forest had evolved into a landownership complex that consisted of purchased federal parcels and of state forests comprising trust-fund and forfeited lands.

#### FEDERAL PURCHASE AND TAX DELINQUENCY

Forfeiture and federal purchasing had almost ceased by 1940. The tendency of original Timber and Stone Act parcels to undergo one or the other process was not random; former ownership characteristics influenced whether a parcel was forfeited or purchased by the federal government. Most of the forfeited lands had been owned by persons whose holdings were less than 480 acres. The Timber and Stone Act required that land be purchased by individuals in small parcels, so the law might have contributed to forfeiture. Owners, usually corporations, that consolidated the parcels into large tracts did not forfeit, but eventually sold their holdings to the federal government.

The practice of separating timber rights from landownership seems to have influenced the final title of Timber and Stone Act lands. Plots with separated timber rights became forfeit more consistently than lands that retained those rights. The general pattern was one of small holders selling timber rights and forfeiting their titles, while large holders retained both and disposed of them to the federal government. The sequences involved with these two types of title transfer created small, scattered, forfeited parcels interspersed with large blocks of federal holdings. Exchanges were necessary to consolidate the holdings of each government. The average size of contiguous blocks was 436 acres for federal land and 245 acres for lands forfeited to the state (Fig. 6).

In that context, the legislature of Minnesota followed federal precedent and authorized land exchanges in 1939 to consolidate scattered tracts in the state and federal forests.<sup>43</sup> Most federal lands available for exchange were along the expanding edge of the national forest that had been obtained by

<sup>41</sup> A. D. Wilson, *Progress in Development of a Land and Timber Management Program in North-eastern Minnesota* (St. Paul: University of Minnesota Agricultural Experiment Station, 1944), 11.

<sup>42</sup> Statistical Report, Biennium Ending June 30, 1942, Minnesota Department of Conservation, St. Paul, 1942, 20-21.

<sup>43</sup> Minnesota, *Laws of 1939*, Chapter 382; *Ninth Biennial Report, 1947-1948*, Minnesota Department of Conservation, Division of Forestry, St. Paul, 1949, Section II, 47.

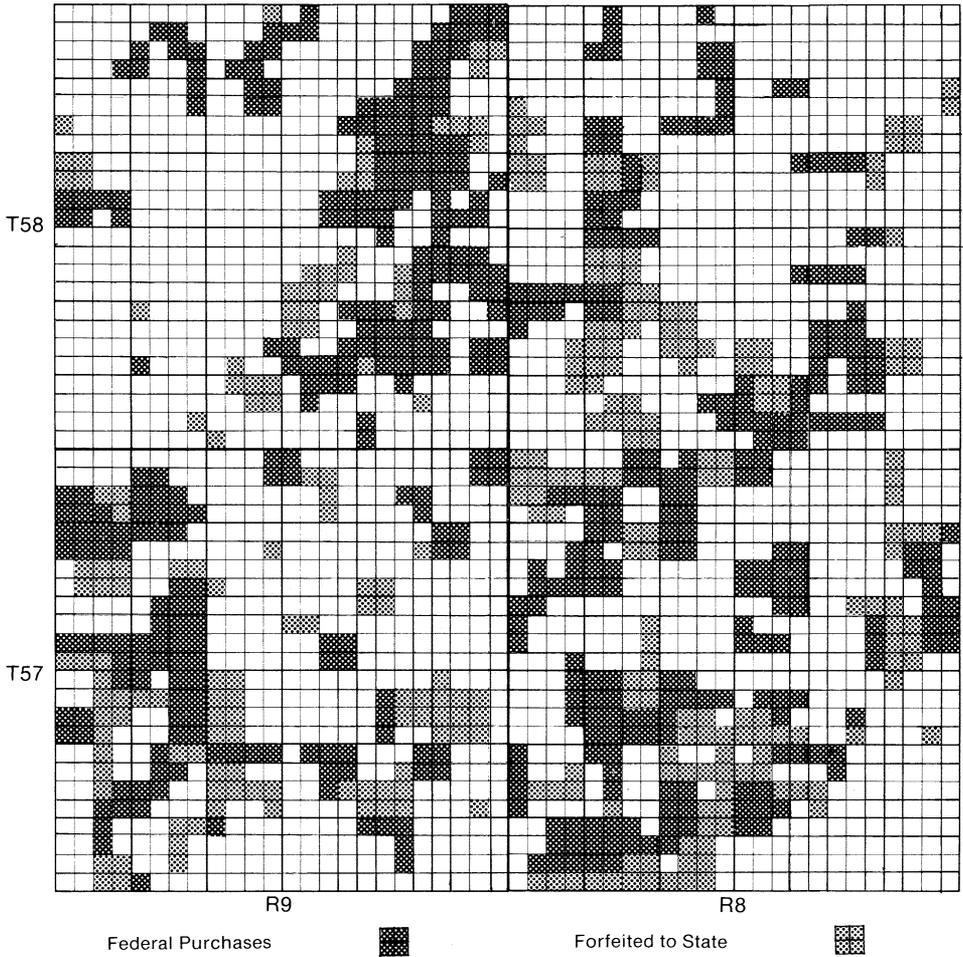


FIG. 6—Public-land acquisition 1928–1940. *Source:* Compiled by author from data in Lake County deed records, Two Harbors.

purchases in the previous decade. These late-surveyed areas were the sites of extensive entries under the Timber and Stone Act. The land being exchanged had been purchased by the National Forest Reservation Commission in the 1930s. The state-owned land in the exchange was within the original boundaries of Superior National Forest. The end result consolidated federal holdings in that forest and state holdings along its border.<sup>44</sup>

Part of the exchanges occurred in the four townships. Timber and Stone Act land that had been repurchased by the federal government was exchanged for state trust-fund lands in the national forest. The Timber and Stone Act parcels became trust-fund land, as if part of an original forest-land grant to the state. Trust-fund land dominated in range 8 and federal land in

<sup>44</sup> Biennial Report, July 1, 1954–June 30, 1956, Minnesota Department of Conservation, St. Paul, 1956, 5.

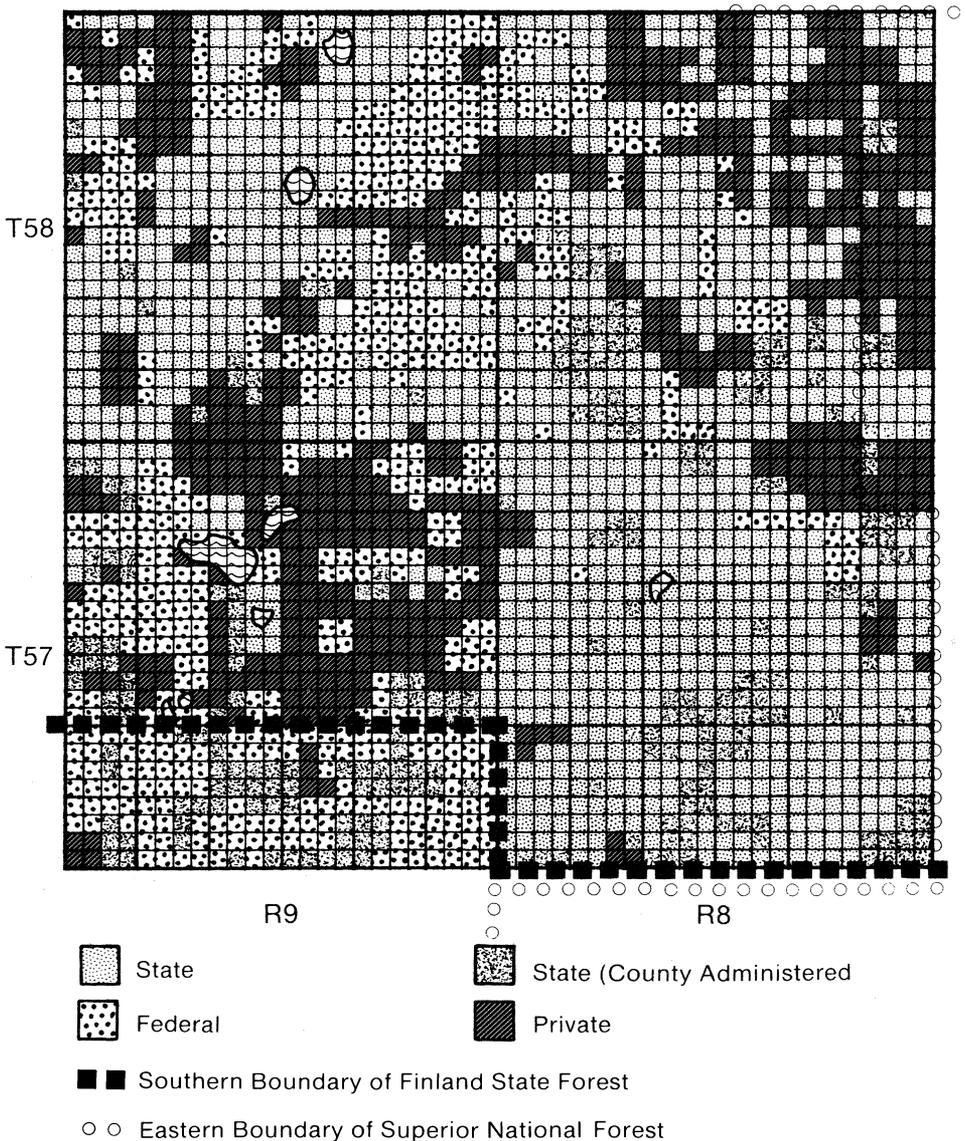


FIG. 7—Landownership patterns 1978. *Source:* Adapted from *Land Ownership in Lake County* (Eveleth: Minnesota Department of Iron Range Resources and Rehabilitation, 1978).

range 9 (Fig. 7). The Timber and Stone Act lands that had shifted from federal to private ownership composed a complex of federal holdings, state tax-forfeited county-managed tracts, and state trust-fund plots as governmental units attempted to consolidate their control over land and timber resources.

#### SUMMARY

Decisions by state and federal governments and individuals led to associated patterns of land-management units and titles that provided the

context for subsequent stages of changes in landownership. Thus all levels of change from the national to the local were invariably linked, and an alteration at one scale provided the context for shift at another. Changing beliefs about resources, definition of the public good, and perception of governmental responsibilities set the context for public-land policies.

Provisions of laws and economic factors of supply and demand create initial associations among landownership types at regional and local scales. The local pattern of land purchases is much more complicated. Pricing policies by the Department of the Interior and their relationships to other federal and state laws affecting land sales contribute to the evolution of an associated landownership complex. These initial associations are the stage for each successive generation of decision making.

After initial entry, economic forces and governmental goals influence landownership change. Private parties and governmental agencies attempt to create ownership patterns that enhance their effective management of resources. The interplay among the various groups leads to new associations of landownership.

Landownership patterns are concatenations. Defining the linkages and associations begins the process of understanding them. Change must be examined both at the local level and in the contexts of regional and national trends. The impetus for change flows in two directions: from the ideological framework at the national level to owners of individual parcels, and from local realities to the national level. This multiscale analysis assesses the effects of philosophical beliefs as contained in laws on a local landscape and can lead to understanding of conflicts and adjustments that result from implementation of laws. The reality of local circumstances can be a breeding ground for new philosophies and initiatives that become part of congressional deliberations.