

## Indian Land Retention in Colonial Metztlán

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The extent of Indian land retention in New Spain is a critical factor in any evaluation of the impact of Spanish colonization upon the native population. The traditional view, based primarily on François Chevalier's analysis of land tenure patterns -published in 1952-, has been that the steady absorption of land by Spanish agricultural units deprived Indian communities of their best lands and, as a consequence, forced Indians to assume subservient roles within the colonial economy. Although Chevalier cautioned against assuming that such a process of Indian land deprivation occurred with equal intensity in all areas of New Spain, it took nineteen years to identify some regional variations in land distribution patterns to challenge the colony-wide validity of Chevalier's basic model.<sup>1</sup> In 1972, the historian William B. Taylor was among the first to perform this function by demonstrating that Oaxacan Indian communities and *caciques*, instead of falling victim to wholesale land alienation, retained sufficient land to meet basic subsistence requirements and thereby avoid economic dependence upon Spanish estates.<sup>2</sup>

In view of these contrasting assessments of Indian land retention, Taylor postulated that Chevalier's formulation may most accurately have applied to land conditions in northern Mexico, while the Oaxacan pattern of his research may have been more typical of land distribution in southern Mesoamerica.<sup>3</sup> When the discussion started, additional studies were needed to determine the applicability of either the Oaxacan or northern Mexican land patterns to other areas of New Spain. With that objective in mind, I focussed on the history of land possession by the Indian community of Metztlán in central Mexico

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\* Slightly revised reprint from *The Hispanic American Historical Review*, 53:2 (May 1973), 217-238. Copyright © by the Duke University Press. Reprinted by permission of the Publisher. Professor Osborn has published additional material on land use in colonial Metztlán in his "Land Utilization in Late Eighteenth-Century Metztlán," in *Revista Encuentro*, 17 (1987), published by the Colegio de Jalisco.

and its satellite villages during the colonial period. The central issue considered was whether or not these Indian villages, in the face of Spanish land acquisition, retained enough land to sustain their inhabitants by means of agricultural production on their own landholdings. This study still contains enough information to reprint it in this volume.

Metztitlán, located some 200 kilometers northeast of Mexico City on the edge of the Mesa Central, has had a continuous history as a regional political center from the pre-Colombian era to the present. Prior to the arrival of the Spaniards, Metztitlán served as the capital of an independent political entity (designated as a *señorio* in post-Conquest terminology) which by force of arms preserved its autonomy vis-à-vis the Aztecs. With the advent of Spanish authority, Metztitlán was initially integrated into the colonial structure as the administrative center for the *alcaldía mayor* named after it. As a result of the intendency reform of the late eighteenth century, Metztitlán then became a *partido* within the Intendency of Mexico. Finally, after a series of jurisdictional reorganizations during the first century of the national period, Metztitlán in 1917 emerged as the center of one of the eighty-two *municipios* in the modern Mexican state of Hidalgo.<sup>4</sup>

The geographic focus of Metztitlán is the valley of the same name. Oriented along an axis running from the southeast to the northwest and encompassing an area of approximately 27,500 acres, the valley extends about forty kilometers from its inception at a point known as Venados to the Lake of Metztitlán which serves as the terminus for the Metztitlán River.<sup>5</sup> The agricultural value of this valley is attributed to specific geological factors. A prehistoric landslide dammed off the northwestern end of the valley which obstructed the natural drainage of the Metztitlán River into the Gulf of Mexico via the Pánuco basin. Although subterranean drainage siphoned off some water, the flow was insufficient to handle the volume of water carried by the river. Consequently, the Lake of Metztitlán formed in front of the obstruction and soil carried by the river silted out to form a narrow but fertile valley well suited to irrigated farming.<sup>6</sup> But the very factors that made the valley valuable for agricultural production also produced the major disadvantage of the area: recurrent floods. Depending on the amount of annual rainfall, the lake and river flooded varying proportions of adjacent valley land. The obvious remedy for this problem, construction of drainage tunnels, was considered on several occasions during the colonial period, but no adequate drainage system was completed until the twentieth century.<sup>7</sup> However, even before the advent of improved drainage, a portion of valley land usually escaped the floods, and this area provided a nucleus of usable land for regular cultivation of basic crops such as maize, beans, cotton, several varieties of chile, and, after Spanish contact, wheat.<sup>8</sup>

Located strategically twenty kilometers from the beginning of the valley and seventeen kilometers from the lake, the colonial town of

Metztitlán served as the *cabecera* (head village) for numerous subordinate villages or *sujetos* clustered along the edges of the valley and in the surrounding mountains. Although it is difficult to determine the exact number of *sujetos* attached to Metztitlán, it appears that the total ranged from forty in the middle of sixteenth century to approximately thirty in the eighteenth century.<sup>9</sup> The history of Indian land possession considered in this chapter deals with the entire *cabecera-sujeto* complex as an entity, the *pueblo de indios* discussed by other authors in this volume, not just the *cabecera* of Metztitlán.

Although information on pre-Hispanic land tenure in the area of Metztitlán is sparse, it appears that the indigenous land system included both communal and private ownership. Indian commoners (*macegales*) had usufruct rights to parcels assigned from communally owned lands, while Indian leaders and nobles held land as private property. These two forms continued as the basic categories of land tenure among the Indians of Metztitlán throughout the colonial period. However, communal land tenure was clearly predominant, and private land ownership secondary. The preeminent position of communal tenure is well documented for the latter decades of the eighteenth century, when the *cabecera* of Metztitlán successfully blocked most attempts by individual Indians to claim land as private property. This would suggest that communal tenure dominated the land system from the beginning of the colonial period, and limited evidence of private Indian land ownership in the sixteenth and seventeenth centuries tends to confirm that conclusion. The only indications of private land ownership that have been found for these centuries are one viceregal confirmation of an Indian's inherited property in 1583 and the sale of small parcels of privately-owned land in the first decade of the seventeenth century. There is no evidence that former chiefs gained *cacicazgo* rights to land as entailed estates, or that Indian nobles consolidated extensive landholdings. Moreover, most land disputes and official title delineations for the area of Metztitlán refer to lands held by Indian villages or by Spanish estates, with no mention of private Indian holdings. Given the dominance of communal tenure, a comparison of the respective amounts of land held by Spaniards and Indian communities during the colonial period provides the general framework for assessing Indian land retention.<sup>10</sup>

Data on colonial land possession in the vicinity of Metztitlán are found in a variety of sources. Viceregal land grants offer the most comprehensive data on the size of Spanish landholdings; additional data are provided by occasional references to the extent of Spanish estates contained in information on land transfers and disputes. Indications of the extent of Indian land possession also occur in the context of specific land disputes, but the most comprehensive data appear in applications for official land titles. In most of these sources the areas involved are expressed in terms of three standards units of measurement: *estancia de ganado mayor* (officially: site for cattle rai-

sing: 4,338 acres or 1755 hectares), *estancia de ganado menor* (site for raising smaller livestock such as sheep and goats: 1,928 acres or 780 hectares), and *caballería* (crop land: 105 acres or 42.8 hectares). Although these terms initially specified the type of activity for which assigned land could be used as well as different degrees of property rights, such distinctions were gradually discarded and the term became simply units of area measurement.<sup>11</sup> These standards are used in the following discussion as the basis for computing land areas. It must be noted, however, that actual land sizes of Spanish and village holdings may have been larger or smaller than the documents indicate, since most references to area are either unconfirmed by any form of land survey, or, at best, only supported by haphazard surveys and vague boundary descriptions. Nevertheless, in the absence of fully verified information, such evidence must be used as the best source of land statistics.

Spanish land possession in the vicinity of Metztlán began with holdings acquired by two of Metztlán sixteenth-century *encomenderos* Alonso de Mérida and Andrés de Barrios. In 1543 Mérida received a viceregal grant for one and one-half *caballerías* of crop land (158 acres, 64 hectares) and one *estancia* for livestock grazing. The grant failed to stipulate whether the *estancia* site was *menor* or *mayor*, but assuming the latter, we can estimate that the combined size of Mérida's grant was approximately 4,496 acres. Although no similar land grant has been found for Andrés de Barrios, his heirs subsequently (1601) claimed possession of two *caballerías* (210 acres, 85.8 ha.) of wheat land and vineyards in the valley of Metztlán. The only other known sixteenth-century Spanish land acquisition consisted of three *caballerías* (315 acres) granted to Pedro López de Aragón in 1598. On the basis of the holdings of these three individuals, a composite figure for sixteenth-century Spanish land possessions in the vicinity of Metztlán is 5,021 acres or 2,032 hectares.<sup>12</sup> As there are major time gaps in sixteenth-century land grant records, it is possible that this figure constitutes only a partial indication of the total amount of Spanish land acquisition for this period.<sup>13</sup> On the other hand, the fact that the areal extent of seventeenth-century Spanish properties in most instances can be traced to known sixteenth- and early seventeenth-century grants and purchases suggests that the record of sixteenth-century grants in the vicinity of Metztlán may be virtually complete.

After this relatively modest beginning, Spanish land acquisition accelerated rapidly during the first two decades of the seventeenth century. During the period 1607-1615, viceregal land grants were issued to four Spaniards: Francisco de Quintana Dueñas, Juan de Velasco, Don Fernando Oñate, and Don Juan de Sosa. Consisting of eight distinct grants, the area assigned included five *estancias de ganado mayor*, three *estancias de ganado menor*, and sixteen *caballerías*, for a total of approximately 29,154 acres.<sup>14</sup> This total was increased to 29,469 acres when one of the recipients, Francisco de Quintana Due-

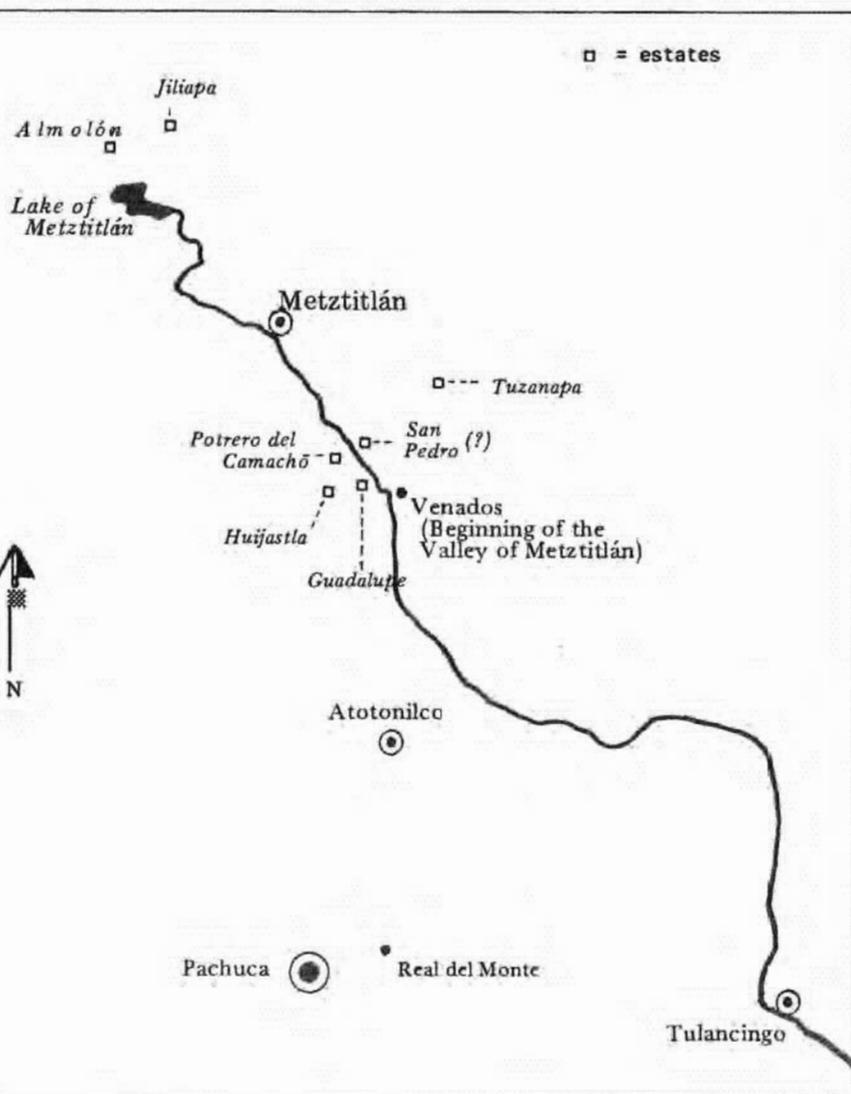
ñas, enlarged his land grants by purchasing several small parcels of land (totaling about three *caballerías* or 315 acres) from individual Indians and the community of Metztlán.<sup>15</sup> These seventeenth-century Spanish acquisitions, in combination with the 5,021 acres alienated in the sixteenth century, brought the total extent of Spanish holdings to 34,490 acres (some 14,000 ha.) by 1615. A major portion of this total area can be identified with five Spanish landholdings extant in the early seventeenth century (in acres):

<i>hacienda</i> and <i>trapiche</i> of Almolón	1,260
<i>potrero de Camacho</i> (irrigated crop land)	210
<i>hacienda</i> of Huijastla	4,548
<i>hacienda</i> of Guadalupe (alias Nogales)	8,676
<i>hacienda</i> of Tuzanapa	<u>15,300</u>
total:	29,994

The remainder of the total area, 4,496 acres (about 2,000 ha.), equivalent to the area gained by Alonso de Mérida in the sixteenth century, cannot be linked to any known Spanish property. At the beginning of the eighteenth century (1712) these five estates, along with the *hacienda* of San Pedro, constituted the total number of Spanish landholdings in the immediate vicinity of Metztlán and its *sujetos*. This number was then increased to seven in 1718 when Don Antonio de Saucedo established the *hacienda* of Jiliapa on the basis of a vice-regal grant of 6,266 acres.<sup>16</sup>

Information on eighteenth-century sizes has been found for five of these seven units. Four of the estates, extant by the first decades of seventeenth century (Almolón, Potrero de Camacho, Guadalupe and Tuzanapa), either maintained their original sizes or expanded only slightly. Specifically, Potrero de Camacho and the *hacienda* of Guadalupe remained static in size, while the *haciendas* of Almolón and Tuzanapa added, respectively, four and three *caballerías* (735 acres) to their original holdings.<sup>17</sup> On the basis of the eighteenth-century sizes of these four units and the *hacienda* of Jiliapa plus the seventeenth-century size of the *hacienda* of Huijastla, for which no eighteenth-century figure has been found, a total of 36,995 acres can be calculated as a partial estimate of Spanish land possession in the eighteenth century.<sup>18</sup> Assuming that the 4,496 acres granted to Alonso de Mérida in the sixteenth century were not included in any of these six estates, we can increase this total to 41,491 acres. This latter figure may still be less than the actual extent of Spanish land possession, since no size indication for the seventh estate, the *hacienda* of San Pedro, has been found for any point during the colonial period. Yet perhaps San Pedro was largely identical with Mérida's 4,496 acres. If so, the figure of 41,491 acres may be relatively complete estimate of the total amount of land controlled by Spaniards. If not, the total can be adjusted by arbitrarily assigning San Pedro an area of 6,168 acres, based on the average size of the six estates for which data exists, to increase

MAP II. LOCATION OF THE COLONIAL CABECERA OF METZTITLÁN  
IN RELATIONSHIP TO SPANISH ESTATES AND  
THE MINING REGION OF PACHUCA



the estimate to 47,659. In view of these considerations, it may be postulated that total Spanish land possession in the vicinity of Metztitlán ultimately ranged between 40,000 and 50,000 acres, about 16,000 and 20,000 hectares.

The reputed fertility of land in the Valley of Metztitlán must have been a prime stimulus for Spanish land interest in this region. In 1579, the *alcalde mayor* of Metztitlán reported that one *fanega* of wheat planted on valley land yielded fifty *fanegas* in harvest, while two centuries later local observers claimed that under ideal conditions maize yields exceeded forty-five *fanegas* an acre. Beyond meeting local consumption needs, a portion of Metztitlán agricultural production found outlets in regional markets. For example, Metztitlán served as one source of agricultural supplies for the Pachucan mining region, located some 75-90 kilometers to the south. The importance of Metztitlán as an agricultural supplier for these mines is suggested by a warning in 1787 that a recent frost in the Valley of Metztitlán would reduce normal maize yields and sharply inflate maize prices in the mining camps of Atotonilco and Pachuca, see Map II. Moreover, various mine owners and residents of the Pachucan mining region held *haciendas* in the vicinity of Metztitlán during the seventeenth and eighteenth centuries. These arrangements may be construed as attempts on the part of the miners to establish more rational control over the provisioning of the mines. Among the miners holding land in the Metztitlán region was the owner of the valuable *Real de Monte* mines, Pedro Romero de Terreros, Conde de Regla, who acquired the *haciendas* of Huijastla, San Pedro, and Potrero del Camacho in the middle decades of the eighteenth century when he was engaged in the expensive rehabilitation of his mines.<sup>19</sup>

During the seventeenth century the economic ties between Metztitlán and Pachuca also involved *repartimiento* labor for the mines. At the beginning of the century Metztitlán and his *sujetos* supplied 42 Indians for this obligation every two weeks. Then as a consequence of Indian depopulation, Metztitlán's *repartimiento* requirement fell to 20 Indians in 1662. Although no later figures have been found, the *repartimiento* of Indians from Metztitlán for the Pachucan mines was still extant in 1690 when the Indians accused the miners of alleged mistreatment involving wages and food allowances.<sup>20</sup>

In addition to its value as a fertile agricultural region, the area of Metztitlán may have been attracted Spanish attention by virtue of its strategic location athwart the road (*camino real*) leading from Mexico City to the Huasteca region northeast of Metztitlán. Trade passing along this route could have given resident opportunities to engage in commerce themselves, or at least to sell locally-raised pack animals to other merchants. Listings of sizable mule and horse herds in eighteenth century property inventories of both Indians and Spaniards suggest the possible existence of such trading activities.<sup>21</sup>

Spanish land acquisition in the area of Metztlán initially provoked little Indian resistance. Although one of the *sujetos*, San Pedro Tlatemalco, in the middle of the sixteenth century disputed Alonso de Mérida and Adrés de Barrios' claims to a small parcel of valley land, there is no evidence of Indian opposition to the much more extensive alienation of land that occurred between 1607 and 1615. A partial explanation for the absence of Indian resistance in this latter period may be the surplus land conditions caused by the declining population of the area. With more land than could be effectively used, the Indian villages might well have failed to recognize land alienation as a threat to their interests. Indeed, Indian land sales to Francisco de Quintana Dueñas in 1607 were justified on the grounds that no Indians were available to farm the areas involved.<sup>22</sup>

Any passive acquiescence on the part of Indians to Spanish land acquisition was, however, only temporary. In 1632 the Indians acquired an *Audiencia* order instructing local Spanish officials to protect Indian land against illicit alienation. At issue was the complaint that some Indians of the area were being relocated in new settlements (*congregaciones*) for no other reason than to free Indian land for Spanish acquisition. Such being a flagrant violation of the intent of the colonial resettlement policy, the *Audiencia* readily condemned this abuse.<sup>23</sup>

While such specific decisions as this reflected official concern for Indian land rights, Indian communities needed definitive legal instruments to provide general protection against land alienation. For the Indian villages of Metztlán this was ultimately achieved through the process of *composición*. Piecemeal consolidation of Spanish estates through viceregal land grants, direct purchases from Indians, and, in some instances, illegal encroachment on Indian land meant that many Spanish landholdings established in the sixteenth and early seventeenth centuries lacked adequate legal titles. Indian land claims suffered from similar, or even more severe, title deficiencies, with specific entitlements either non-existent or inadequate to cover all areas claimed by Indian communities. In the context of this confusion over land titles, coupled with the need for additional revenue, the crown initiated the policy of validating land possession through *composición*. As refined in the first half of the seventeenth century, this procedure gave both Spaniards and Indian communities the right to apply for comprehensive land titles by presenting extant titles along with *de facto* evidence of possession to untitled land. If these claims were judged valid, new titles were issued with the condition that the recipients pay a settlement fee or tax.<sup>24</sup>

For Metztlán legalization of land rights by means of this procedure culminated in 1713 when the Indians acquired a comprehensive *composición*. Prior to this, the Indians claimed that Metztlán and its *sujetos* had received some form of official recognition of land rights on three occasions during the seventeenth century. The earliest confirmation was allegedly issued by Viceroy Lope Díez de Armendáriz in 1639. Subsequently the "superior government and royal audiencia"

granted another instrument of settlement in 1662. References to both of these entitlements are indirect, in later land disputes, and in neither instance are copies of the instruments included in the documents pertaining to those disputes. Consequently, it has not been possible to determine the nature of these two confirmations. The third seventeenth-century example of land confirmation, however, is clearly a *composición*. In the last decade of the seventeenth century the village of San Nicolás Atecoxco, one of Metztlán's *sujetos*, became embroiled in a boundary dispute with the adjacent *hacienda* of Tuzanapa. To defend its position, the village, in concert with the others within Metztlán's jurisdiction, acquired a *composición* in 1695 on payment of 50 *pesos*. On the basis of this entitlements, the *Audiencia* in 1700 issued a decision in favor of the Indian village.<sup>25</sup>

Although the 1695 *composición* theoretically protected the lands of all villages in the *cabecera-sujeto* complex of Metztlán, a land dispute in 1707-1709 between the village of San Pedro Tlatemalco and Don Martín de Arxoleza, a Spaniard, demonstrated its inadequacy as a definitive entitlement for Indian holdings. Both Arxoleza and San Pedro claimed possession of the 210-acre tract known as Potrero de Camacho. As evidence of ownership, the Indians cited the 1695 *composición* and presented a map allegedly based on that instrument. Arxoleza, claiming possession of the area by virtue of purchase from the preceding Spanish owner, countered the Indian case by arguing that the *composición* did not explicitly indicate the location of San Pedro's land. On this basis, he challenged the authenticity of the map offered by the village, noting that Indians were notorious for drafting fraudulent land maps. Arxoleza's arguments proved sufficiently persuasive to win *Audiencia* confirmation for this claim by February 1709.<sup>26</sup>

This decision may have prompted the immediate attempt of another Spaniard to gain land at the expense of the Indian villages. In October, 1709, Don Martín Bernardino Luzón y Ahumada, a resident of the mining center of Pachuca and current owner of two *haciendas* in the vicinity of Metztlán (San Pedro and Huijastla), denounced as vacant all land in the area that was unprotected by specific titles and lay outside the minimal townsite plots (measuring 600 *varas* in all directions from the center of each Indian village) to which each Indian village was automatically entitled.<sup>27</sup> Arguing that land exclusive of these two categories was legally royal land (*realenga*) to be assigned as the crown saw fit, Luzón offered to pay 3,000 *pesos* in return for a *composición* for all land located in the areas which separated the townsites of Metztlán and its 'sixteen' subordinate villages.<sup>28</sup>

No other individual before or after Luzón ever made such sweeping claims to land within Metztlán's jurisdiction. Fortunately for the Indians, the agent dispatched from Mexico City to determine the validity of Luzón's petition rejected it and, instead, arranged a new *composición* in 1713, confirming Indian land claims beyond minimal townsite plots. The investigation leading to this solution indicates the arguments used by the Indians to defend their land, as well as the

amount and quality of the land entitles by the 1713 *composición*. Following standard investigatory procedures, the agent (José Benito Semino) first collected testimony from local residents to determine the legal status of land sought by Luzón. Each of the seven witnesses questioned agreed that the Indian villages had held the land since 'time immemorial'. Moreover, they pointed out that the communities needed substantial quantities of land because floods during years of heavy rainfall severely reduced the availability of valley land. In addition, the witnesses informed Semino, that there were twenty-seven major villages in the region instead of only sixteen, as Luzón had erroneously claimed. At the same time, they noted that land rights of these villages excluded the areas already incorporated into the six existing Spanish landholdings within Metztlán jurisdiction.<sup>29</sup> On the other hand, the witnesses could offer little firm evidence of Indian land rights based on previous land titles. Five of the seven admitted knowledge of the 1695 *composición*, but unfortunately this document could not be presented as evidence because it had been given to a former *alcalde mayor* to use in an earlier land dispute and had never been returned to the Indian officials. Several witnesses also claimed that other titles had been issued in favor of the Indian villages, but these had all been lost, destroyed, or stolen.<sup>30</sup>

After hearing this testimony, Semino denied Luzón's petition and instructed the Indians to apply for a new *composición* to correct their title deficiencies. The initial step involved a survey (*vista de ojos*) to determine the boundaries of the land claimed by Metztlán and its *sujetos* vis-à-vis surrounding Spanish properties and land belonging to neighboring Indian *cabaceras*. Upon completion of the survey, two competent members of the crew estimated that the established boundaries encompassed a gross area equivalent to approximately fourteen sites of *ganado mayor*, or 60,732 acres/24,579 hectares. However, the major portion of this total area was of little value. Only an area equivalent to two sites of *ganado menor* (3,856 acres/1,560 hectares) was located in sections of the Valley of Metztlán relatively free from the threat of recurring floods. This was the most valuable land, worth an estimated 2,000 *pesos*. An additional 22,172 acres (a little more than five sites of *ganado mayor*/8,973 ha.), usable for pastures and marginal farming, was worth only 400 *pesos*. The other eight sites of *ganado mayor* (37,704 acres/14,045 ha.), valued at 160 *pesos*, had virtually no economic utility since they were located in the mountainous terrain surrounding the Valley.<sup>31</sup>

The final step in Metztlán *composición* application involved payment of the administrative costs for the investigation, along with the settlement fee. Since the Indians were too poor to pay 3,000 *pesos* as Luzón had offered, Semino set the *composición* fee at 1,000 *pesos*. To this amount was added 1,500 *pesos* to cover the expenses of the investigation, bringing the total cost of the application to 2,500 *pesos*. An initial installment of 1,000 *pesos* was paid in May 1713, with the remaining 1,500 delivered in November of the same year. With the

payment completed, the *composición* was officially issued on November 29, 1713. But even before the final issuance of the *composición*, Luzón accepted the decision and formally withdrew his petition, claiming that he only had sought title to vacant land in the region, not land held legitimately by Indian communities.<sup>32</sup>

The successful negotiation of a comprehensive *composición* by the Indian *cabecera* of Metztlán was a noteworthy achievement. It has been suggested by Gibson that Spaniards with their superior financial resources could usually outbid Indian communities for *composiciones*.<sup>33</sup> Nevertheless, in this instance the Indians succeeded even though their *composición* fee of 1,000 *pesos* was only one-third of Luzón's offer. The fact that three current Spanish landowners in the area supported the Indians in their dispute with Luzón may have been a major factor in Metztlán's success.<sup>34</sup> Surely the willingness of some Spanish landowners to concede that the Indian villages held land in addition to their townsites strengthened the Indian position. If motivated by other than concern for the justice of the Indian case, these Spaniards may have felt that Luzón's attempt to enlarge his landholdings threatened their own economic interests, either in terms of competition for Indian labor or as a impediment to their own possible acquisition of additional land.

The 1713 *composición* did not completely prevent further alienation of Indian land. As noted above, Don Antonio de Saucedo in 1718 gained title to 6,266 acres which became the basis for the *hacienda* of Jiliapa, located north of the Valley of Metztlán. Saucedo acquired this area over the objections of the Indians by denouncing it as vacant land and paying a settlement fee of 150 *pesos*.<sup>35</sup> While there is no evidence that the Indians cited the 1713 *composición* to support their objections, they probably did, since the land involved fell within the general boundaries established by that instrument. Consequently, in this instance the *composición* failed to protect Indian land.

On the other hand, there is no evidence that any other party after Saucedo gained title to a comparable amount of land in the area of Metztlán during the remainder of the colonial period. Land disputes between Indian villages and Spaniards continued, but the conflicts involved the location of boundaries separating extant Spanish landholdings from Indian land rather than the establishment of entirely new estates. Although these boundary disputes were potentially as great a threat to Indian land as new entitlements, available documentation suggests that the Indians often successfully defended their positions. During the middle decades of the eighteenth century (1744-1769) villages subject to the *cabecera* of Metztlán became involved in four separate boundary disputes with Spanish *haciendas*. Citing the 1713 *composición* as a basic element in their defense, the Indians won clear decisions in two of these disputes, while in the other two, for which no final decision is known, the Indian cases were strong enough to prevent any immediate decisions in favor of the Spaniards.<sup>36</sup> On the

basis of this limited evidence, it may be suggested that the process of Spanish land acquisition moderated after 1718.

Assuming, then, that Saucedo's acquisition constituted the last major alienation of Indian land in the colonial period, we are left with a figure of 54,466 acres or about 22,000 hectares (amount of Indian land designated by 1713 *composición*, 60,732 acres, less Saucedo's 6,266 acres) as the total area retained by the Indians of Metztlán. In gross terms, this meant that the Indians held a slightly larger amount of land than the 40,000 to 50,000 acres estimated as the combined total for the seven eighteenth-century Spanish estates.<sup>37</sup> The crucial question, however, is whether the area retained by the Indians included sufficient amounts of agricultural land to meet the subsistence needs of the Indian population. To determine the subsistence potential of Indian land, the ratio between agricultural production and the Indian population must be examined.

In the area of Metztlán the best agricultural land is located in the valley itself. As indicated in the 1713 *composición*, the Indians controlled only 3,856 acres of flood-free valley land. Although the Indian villages did hold several thousand additional acres in the valley, that land could not be relied upon as a constant source of production since it often flooded. Limiting our focus to the 3,856 acres of land consistently under cultivation, we can calculate per capita maize yields from this area for the years 1753 and 1803. In 1753, an Indian population of approximately 7,614 meant a per capita acreage of 0.51 acres (3,856 acres/7,614 pop.), while a population of 12,624 in 1803 resulted in a per capita acreage of 0.31 acres (3,856 acres/12,624).<sup>38</sup> According to eighteenth-century observations, one acre of Valley land under optimum conditions yielded a minimum of approximately 45 *fanegas* of maize.<sup>39</sup> On the basis of these figures, per capita production can be calculated as 22.95 *fanegas* in 1753 (0.51 acre  $\times$  45 *fanegas*) and 13.95 *fanegas* in 1803 (0.31 acres  $\times$  45 *fanegas*). The validity of these per capita figures, however, is suspect, since the individuals who reported the yield ratio used to calculate the yield estimate of 45 *fanegas* per acre did so as advocates seeking authorization and funds from the colonial government to drain the lake of Metztlán. In such a context, they may have intentionally exaggerated the productivity of valley land in order to strengthen their petition for approval of the drainage project. Nevertheless, even if the actual maize yield per acre was only half that claimed by the project supporters, the reduced per capita amounts (1753: 11.48 *fanegas*; 1803: 6.98 *fanegas*) exceeded or fell within the 4 to 7.6 *fanegas* range which has been estimated as the minimum annual adult subsistence requirement.<sup>40</sup> Moreover, production on prime land was probably supplemented by some crops grown on the extensive areas of marginal land controlled by the Indians. Thus it can be postulated that Indian land resources were theoretically sufficient to meet the basic subsistence needs of the population.

Further proof of Indian land solvency is indirectly provided by evidence that relatively few Indians of the area became resident laborers (*gañanes*) on adjacent *haciendas*. In 1801 the subdelegate reported that out of a total tributary population for Metztlán and its *sujetos* of 3,497, only 232 tributaries (or about 6.63%) had abandoned their villages to assume permanent employment on Spanish estates as resident laborers. The percentage of permanent Indian laborers attached to *haciendas* surely would have been higher if Indian land resources had not been sufficient to meet the basic subsistence requirements of the majority of the Indian population.<sup>41</sup>

Although both per capita production figures and the extent of Indian involvement as laborers on Spanish landholdings point to the conclusion that the Indian villages within the *cabecera-sujeto* complex of Metztlán retained enough land to support their inhabitants, prime land was certainly not overabundant. This fact became painfully apparent during seasons when weather-related disasters reduced yields and destroyed crops. These disasters included occasional frosts and droughts, but, as noted, floods were the most common cause of crop destruction in the Valley of Metztlán. As a step toward flood control, Don Bernardo Miramón, subdelegate of Metztlán, in 1787 urged that a drainage system be constructed to lower the level of the lake at the northern end of the valley. He predicted that upon completion of the project, not only would the Indians have abundant valley land for their own needs, but the resulting agricultural surpluses would lower food prices in the mines of Pachuca and other regional markets. Unfortunately, even though the engineer assigned to determine the feasibility of the project enthusiastically endorsed Miramón's recommendation, the proposed construction was not initiated, or at least never completed, during the colonial period. After several abortive construction attempts in the 1870s, a partial solution to the problem of flooding was finally attained in the 1930s by the completion of a drainage tunnel that usually keeps the Lake of Metztlán below flood level. In the meantime, the margin between sufficient and deficient production from valley land must have remained narrow, with the achievement of a favorable balance in any given year dependent on the capricious role of recurring floods. Moreover, Indian population growth brought a progressive deterioration in per capita shares, and this process narrowed the agricultural subsistence base even under optimum growing conditions. During the latter decades of the eighteenth century, recurring disputes concerning equitable distribution of valley land to the Indians, coupled with demands that non-tributaries be rigorously excluded from land use, indicate that competition for prime land was becoming increasingly critical.<sup>42</sup>

Despite the fluctuating supply of prime land and the threat to sufficient production inherent in the process of population growth, it is clear that the Indian villages of the *cabecera-sujeto* complex of Metztlán did not become landless entities during the colonial period. Metztlán's colonial land experience resembles the favorable Indian

land situation in the Valley of Oaxaca, as well as the Valley of Toluca, discussed by Wood in this volume, and the province of Cuernavaca, discussed by Haskett in this volume, in contrast to the widespread land poverty confronting Indian communities in northern Mexico. Many of the perceptive explanations Taylor formulates for successful Indian land retention in Oaxaca, Wood for Toluca and Haskett for Cuernavaca appear valid for the case of Metztlán: presence of established Indian communities with *de facto* claims to land; existence of a colonial system of justice which, despite an explicit bias in favor of Spaniards, provided Indian communities with legal means for adjudicating land grievances; Indian skill and tenacity in using available, legal recourses of defend land rights; and the realization by Spaniards, both official and private, that Indians needed land to fulfill tribute obligations and produce foodstuffs for regional and urban markets.<sup>43</sup>

However, other elements contributed to the specific dynamics of Indian land retention in Metztlán. Among these was the threat of recurring floods in the valley. Without this geophysical problem, Spanish efforts to gain valley land might have been more intensive, resulting in a proportionately greater alienation of prime land than occurred. Furthermore, the predominance of communal land tenure among the Indian communities of this region may have favored land retention by facilitating corporate defense of Indian land, while limiting piecemeal alienation of individual holdings.

A more general explanation for land retention by the Indians of Metztlán may be related to the particular tempo and nature of Spanish land demands in this area during the colonial period. In the sixteenth century Spanish land activities primarily involved acquisition of limited amounts of land by regional *encomenderos*. Instead of seeking extensive landholdings, these *encomenderos* apparently continued to rely on their rights to Indian tribute as their major economic link with the region. Consequently, the Indian communities experienced an extended period of relatively little land pressure until the intensive period of Spanish land acquisition in the first decades of seventeenth century. This grace period may have served to strengthen Indian claims to land on the basis of prior possession by providing evidence that those rights could be traced not only to the pre-Hispanic era, but also to the initial colonial period.

As in other parts of central Mexico, it is probable that increased Spanish pressure for land in this region was related to the dynamics of Indian depopulation.<sup>44</sup> Regional markets, such as the Pachuca mines to the south and the Ixmiquilpan mines to the west, provided market outlets for the agricultural products of Metztlán.<sup>45</sup> Initially, Spaniards could participate in such trade by relying on Indian production, acquired through tribute or purchase, without engaging directly in agricultural activities themselves. But as Indian depopulation continued throughout the latter half of the sixteenth century, curtailing Indian production while simultaneously making land available for

distribution, Spaniards turned to direct land utilization to meet market demands which no longer could be adequately supplied by Indian agricultural activities.

While market pressures and Indian depopulation may have served as stimulants for increased Spanish land acquisition in Metztitlán at the beginning of the seventeenth century, perhaps a more direct factor was the specific ambition of Francisco de Quintana Dueñas, the husband of Doña Mariana de Mérida y Molina who had inherited land and *encomendero* status in the region from her grandfather, Alonso de Mérida. Quintana not only acquired several land grants of his own, but simultaneously purchased land grants issued to other Spaniards to gain possession of 15,930 acres out of a total of 29,154 acres granted between 1607 and 1615. Although no evidence has been found of prior collusion between Quintana and those who sold him their grants, the rapidity with which the transfers occurred, usually four to six weeks after issuance in obvious violation of the standard stipulations, suggest that Quintana may have used other Spaniards as proxies to gain more land than he could have expected to acquire through direct land grants.<sup>46</sup> In any event, it may be surmised that Quintana's marriage provided a motive for land consolidation in this region which other Spaniards lacked. Even without Quintana, land acquisition by Spaniards would have occurred, but the specific timing of major land alienation might have been altered.

After the early seventeenth century, the tempo of Spanish land acquisition moderated, with only an estimated seven to thirteen thousand acres brought under Spanish control during the remainder of the colonial period. This slowing down may in part be attributed to the fact that much of the best land in the region had already been alienated as a consequence of the burst of land acquisitions at the beginning of the seventeenth century. Thus Spaniards desirous of holding land in the vicinity of Metztitlán perhaps found it more advantageous to acquire already established properties instead of seeking entirely new grants, incorporating less productive land.<sup>47</sup> Available evidence on land transfers among Spaniards during the seventeenth and eighteenth centuries indicates that acquisition of land through such transfers occurred frequently. None of the seven known Spanish properties was an entailed estate, and in no known instance were any of these land units held for more than two generations by the same family. Instead, Spanish holdings regularly passed to unrelated individuals or religious orders through sales, bequests, or settlements of liens and mortgages. Of a total of 42 documented shifts in ownership between the beginning of the seventeenth century and the middle of the eighteenth century, 29 represented transfers to unrelated individuals (26 instances) or religious orders (3 instances), while only 13 transfers involved inheritance.<sup>48</sup>

The very fluidity of Spanish land tenure in the area of Metztitlán may have contributed to Indian land retention. Frequent shifts in estate ownership meant that Indian communities of the region periodi-

cally had to identify the boundaries separating their holdings from adjacent Spanish properties. Land disputes often occurred in the course of this process, with Indian villages claiming that new owners were attempting to encroach in Indian land in blatant disregard for Indian land rights recognized by previous owners. Although the Indians did not always win these disputes, they succeeded frequently enough to reinforce the idea that litigation could serve as a viable weapon for land protection. If Spanish estates had remained in the hands of single families over extended periods, encroachment on Indian land by these properties might have occurred so subtly as to escape easy detection. However, recurrent shifts in ownership, accompanied by the attendant processes of title legitimization and delineation of boundaries, must have made illicit Spanish attempts to expand their landholdings readily apparent to the Indians. To the extent that this awareness stimulated the Indian communities to defend their land rights more persistently and aggressively, it may be postulated that instability of Spanish ownership contributed to Metztlán's retention of land during the colonial centuries.

Another aspect of land concerns in Metztlán involved the issue of internal use of land by the *vecinos* of the community. During the late eighteenth century tension developed among the Indians over the size and quality of land parcels they controlled within the valley. Some Indians claimed that 'rich' Indians controlled disproportionate shares of the most fertile land. They argued that this should be corrected and colonial authorities responded by instructing local officials to make annual assignments of land on a rotational basis in order to correct inequities in both the size and quality of agricultural parcels used by the Indians.<sup>49</sup>

The colonial land histories of Metztlán and other valleys in New Spain indicate that the Indians more successfully defended their land against Spanish absorption than previously thought. As areas of uniformly dense Indian populations, subsisting primarily on sedentary agriculture, several highland valleys, including Metztlán, had long established traditions of comprehensive land utilization. Although these traditions were weakened by extensive Indian depopulation during the initial century of contact, Indian communities in these areas generally retained sufficient population nuclei to demonstrate their continuing land needs, and, thereby, gain official recognition of at least a portion of their historic land rights. But, environmental and population conditions, of course, do not exhaust the range of possible factors which determined regional variations in Indian-Spanish competition for land. As suggested by this examples of Metztlán, the role of other variables, such as the proximity of regions to colonial authorities who might protect Indian land claims, degree of integration of particular areas into the colonial economy, intensity of land competition among Spaniards, instability of Spanish land ownership, the timing and tempo of Spanish land acquisition, and the tenacity of the Indians in defense of their land interests, merit careful considera-

tion in any systematic explanation of the dynamics of Indian land retention in New Spain. However, such a comprehensive analysis, along with the delineation of the range of colonial land patterns, must await the results of additional regional studies on land distribution throughout the colony.

## ENDNOTES

1. François Chevalier, *La formations des grands domaines au Mexique, Terre et société aux XVIe-XVIIe siècles* (Paris, 1952), 290, 405. Other studies which deal with colonial land distribution tended to reinforce Chevalier's formulation at that time. For example, Charles Gibson's study of the Valley of Mexico indicates extensive alienation of Indian to Spaniards. See his, *The Aztecs under Spanish Rule. A History of the Indians of the Valley of Mexico, 1519-1810* (Stanford, 1964), 277-278.
2. William B. Taylor, *Landlord and Peasant in Colonial Oaxaca* (Stanford, 1972), Chapter III, and pp. 195-196. For other titles see the preceding essays.
3. Taylor, *Landlord and Peasant*, 200-201.
4. Diego Durán, *Historia de las Indias de Nueva-España y las islas de Tierra Firme* (2 vols. and atlas, Mexico City, 1867-1880), I, 312-314, 334-336, 351-353, 426-432. *Real ordenanza para el establecimiento é instruición de intendentes de ejército y provincia en el reino de la Nueva-España* (Madrid, 1786), fols. 98v-99r. Sara Cantú Treviño, "La vega de Metztlán en el Estado de Hidalgo," in *Boletín de la Sociedad Mexicana de Geografía y Estadística*, 75 (1953), 112-121.
5. Cantú, "Vega de Metztlán," 9.
6. Jorge I. Tamayo, *Geografía general de México* (2 vols. and atlas, Mexico City, 1949), II, 109, 187-188. In the absence of this obstruction the geographic configuration of the era probably would have been that of a canyon or *barranca*, unsuited for intensive farming.
7. Antonio Ríos López and Pablo Bistrain, "Exploración de la Vega de Metztlán, Hgo.," in *Ingeniera hidráulica en México*, 12 (1958), 21-23.
8. Gabriel de Chávez, "Relación de la Provincia de Metztlánd (*sic*)," dated 1579, in *Colección de documentos inéditos, relativos al descubrimiento, conquista y organización de las antiguas posesiones españolas de América y Oceanía* (42 vols., Madrid, 1864-1884), IV, 544-545.
9. *Papeles de Nueva España*, Francisco del Paso y Troncoso, ed. (9 vols., Madrid and Mexico City, 1905-1948), I, 146-147. Archivo General de la Nación, Mexico City (hereafter cited as AGN), Tierras, vol. 1485, exp. 1, f. 135; Tierras, vol. 2254, exp. 1, f. 19r. These figures, based on civil documents, must denote principal *sujetos* since ecclesiastical documents indicate almost twice as many residential locations; see *Papeles*, III, 103-108, and parish baptismal records for the seventeenth and eighteenth centuries. The reduction of the number of *sujetos* between the sixteenth and eighteenth centuries resulted from the elevation of some of Metztlán's *sujetos* to *cabecera* status by the latter century; on a similar process in the province of Tlapa, see Dehouve's essay in this volume.
10. Chávez, "Relación de Metztlánd," 551. *Epistolario de Nueva España*, Francisco del Paso y Troncoso, ed. (16 vols., Mexico City, 1939-1942), XVI, 58-59. On the well documented preeminent position of communal land tenure, see AGN, Tierras, vol. 2254, exp. 3; Tierras, vol. 1680, exp. 2; Tierras, vol. 2820, exp. 13; Tierras, vol. 1677, exp. 4; Tierras, vol. 2253, exp. 4. On private landownership, see AGN, Ramo de Indios, vol. 2, exp. 1002, f. 23v; Ramo de Tributos, vol. 22, exp. 8, fs. 13v-16v. On former *cacicazgo* rights, see the report of Friar Nicolás de San Vicente Paulo, 1554, stating that the former *señor* of Metztlán had been reduced to the status of a commoner and forced to cultivate his own crops; *Epistolario*, XVI, 58.

11. Gibson, *Aztecs*, 276. *Estancia* grants conveyed only usufruct land privileges while *caballería* grants authorized actual land possession. Such distinctions were gradually discarded. For a discussion of these changes, see Chevalier, *Formation des grands domaines*, 346.

12. AGN, Mercedes, vol. 2, fs. 146r-147v. AGN, Tierras, vol. 1806, exp. 10, f. 55v. AGN, Ramo de Tributos, vol. 22, exp. 8, f. 17r.

13. See Lesley B. Simpson, *Exploitation of Land in Central Mexico* (Berkeley and Los Angeles, 1952), 6-7, for a discussion of *lacunae* in land grant records.

14. AGN, Mercedes, vol. 25, f. 427v; Mercedes, vol. 26, fs. 31r-v, 192r-193v, 201v-202r; Mercedes, vol. 30, fs. 117r-118r; Tierras, vol. 1485, exp. 1, fs. 36r-39v; Tierras, vol. 2758, exp. 4, f. 83r-v; Ramo de Tributos, vol. 22, exp. 8, f. 8r.

15. AGN, Ramo de Tributos, vol. 22, exp. 8, fs. 13v-16v. Quintana's purchase of Indian land represented only a minor aspect of his general effort to consolidate extensive land-holdings in the area of Metztlán at the beginning of the seventeenth century. In 1601 he bought the 210-acre parcel owned by the heirs of Andrés de Barrios. Then in 1607-1609 he not only acquired several land grants of his own, but he also purchased the areas granted to Velasco and Oñate. Consequently, Quintana by 1609 held title to at least 16,770 acres (about 7,000 hectares), distributed among three properties: Almolón -1,260 acres- Potrero de Camacho -210 acres- and Tuzanapa -15,300 acres. Quintana's effort to gain land may have been related to his status as the husband of Doña Mariana de Mérida y Molina, grand-daughter of Alonso de Mérida and last member of that family to enjoy *encomendero* privileges to Indians within Metztlán's jurisdiction. If through this marriage Quintana acquired rights to land originally granted to Alonso de Mérida in 1543, his seventeenth-century land acquisitions can be understood as attempts to expand the holdings inherited by his wife. However, Quintana's land consolidation did not remain intact after his death. In 1620, his widow sold the largest of the three units, Tuzanapa, and her heir lost the other two properties by the middle of the seventeenth century as a result of indebtedness; AGN, Tierras, vol. 1613, exp. 1, fs. 36v-37r; Ramo de Tributos, vol. 22, exp. 8, f. 16r.

16. AGN, Tierras, vol. 1561, exp. 3, 2nd part, fs. 6r-15v. AGN, Mercedes, vol. 71, fs. 107r-v; Tierras, vol. 2744, exp. 3, fs. 17v-18r. The entitlement was for one site of *ganado mayor* and one of *ganado menor*.

17. AGN, Tierras, vol. 1806, exp. 10, f. 55v; Tierras, vol. 2758, exp. 4, fs. 83r-v; Tierras, vol. 1613, exp. 1, fs. 47r-50v; Tierras, vol. 2256, exp. 1, f. 82v.

18. Almolón, 1,680 acres; Potrero de Camacho, 210 acres; Guadalupe, 8,676 acres; Tuzanapa, 15,615 acres; Huijastla, 4,548 acres; and Jiliapa, 6,266 acres = 36,995 acres, or about 15,000 hectares.

19. Chávez, "Relación de Metztlán," 548. AGN, Civil, vol. 1624, exp. 1, fs. 23r-24r. See footnote 39 for basis used to calculate the maize yield. The estimate of the distance to the mining region is based on a measure along the modern road connecting Pachuca and Metztlán. AGN, Civil, vol. 1624, exp. 1, f. 11r. AGN, Ramo de Tributos, vol. 22, exp. 8, f. 16r; Tierras, vol. 2963, exp. 73, f. 1r; Tierras, vol. 1561, exp. 3, 2nd part, f. 3v; Tierras, vol. 961, exp. 1, f. 129v; Tierras, vol. 1676, exp. 1, f. 26r-v. For a summary of the Conde's efforts to revive the *Real del Monte* mines, see Bernard E. Bobb, *The Viceroyalty of Antonio María Bucareli in New Spain, 1771-1779* (Austin, 1962), 177-179.

20. *Fuentes para la historia del trabajo en Nueva España*, Silvio A. Zavala and María Castelo, eds. (8 vols., Mexico City, 1939-1946), VI, 117-120; VIII, 17-22. AGN, Ramo de Indios, vol. 30, f. 304.

21. Cantú, "Vega de Metztlán," 11. AGN, Tierras, vol. 2758, exp. 4, f. 28r. AGN, Tierras, vol. 2414, exp. 3, f. 184; Tierras, vol. 2820, exp. 4, fs. 52r-58v; Ramo de Tributos, vol. 22, exp. 5, fs. 6r-10v.

22. *Epistolario*, VII, 117. In 1563 the Indian population was 27,020 [based on 9,650 tributaries multiplied by a conversion factor of 2.8 formulated by Woodrow Borah and Sherburne F. Cook, *The Population of Central Mexico in 1548* (Berkeley and Los Angeles, 1960), 102], but by 1623 it had declined to 14,892 [5,280 tributaries x 2.8]. See, "Lista de

- los pueblos de indios encomendados en personas particulares," ca. 1563, in *Relación de los obispos de Tlaxcala, Michoacán, Oaxaca y otros lugares en el siglo XVI. Documentos históricos de Méjico*, Luis García Pimental, ed. (Mexico City, Paris, Madrid, 1904), 168-169. *Moderación de doctrinas de la real corona administradas por las órdenes mendicantes 1623*, France V. Scholes and Eleanor B. Adams, eds. (Mexico City, 1959), 65. On the land sales to Quintana, AGN, Ramo de Tributos, vol. 22, exp. 8, fs. 12v-16v.
23. AGN, Ramo de Indios, vol. 10, part 3, exp. 12, fs. 6r-7v. According to Howard F. Cline, "Civil Congregations of the Indians in New Spain, 1598-1606," in *Hispanic American Historical Review*, 29 (1949), 349-369, the legitimate purpose of resettlement was to bring isolated Indians into closer proximity with ecclesiastical and civil authorities in order to provide more effective religious instruction and efficient administration.
24. *Recopilación de leyes de los reynos de las Indias* (Ed. Facs. 1791, 3 vols., Madrid, 1943), II, Libro IV, Tit. 12, Leyes 15, 17, 19, 20, 21. Chevalier, *Formation des grands domaines*, 348-363; and the essays of García Martínez, Torales Pacheco, Wood and Haskett in this volume.
25. AGN, Tierras, vol. 1561, exp. 3, 2nd part. For the confirmation by the Viceroy in 1639, see "Títulos de las tierras y aguas que son de los naturales del pueblo de Metztlán en la Nueva España, año 1765," 4 fols. A photographed copy of this document was graciously provided by Señor Mariano Franco, a former resident and teacher in Metztlán who now lives in Mexico City. The grant of 1662 in AGN, Tierras, vol. 1486, exp. 1, f. 7r. The *composición* of 1695 is AGN, Tierras, vol. 1485, exp. 1, fs. 135r-138v; and last fol. in this volume, bound out of order, for the decision of the *Audiencia*.
26. AGN, Tierras, vol. 1804, exp. 4, fs. 2v-3r, 13r-16v; Tierras, vol. 1806, exp. 10, f. 62r. On fraudulent land maps, see Haskett's essay on the *Títulos Primordiales* in this volume.
27. Gibson, *Astecs*, 285-287, 292-293. A *vara* is equivalent to approximately 0.92 yards or 84 centimeters.
28. AGN, Tierras, vol. 1561, exp. 3, 2nd part, fs. 3r-5r.
29. AGN, Tierras, vol. 1561, exp. 3, 2nd part, fs. 6r-15v.
30. AGN, Tierras, vol. 1561, exp. 3, 2nd part, f. 10r.
31. AGN, Tierras, vol. 1561, exp. 3, 2nd part, fs. 21v-22r.
32. AGN, Tierras, vol. 1561, exp. 3, 2nd part, fs. 22v, 29r-v, 30r-32r.
33. Gibson, *Astecs*, 288, 294.
34. AGN, Tierras, vol. 1561, exp. 3, 2nd part, fs. 11v-13v.
35. For sources, see footnote 16.
36. For the two favorable decisions see AGN, Tierras, vol. 2259, exp. 1, f. 22r, exp. 2, fs. 55r-68v, exp. 3, fs. 70v, 96v; Tierras, vol. 2759, exp. 3, fs. 132r-134v, exp. 4, fs. 51r-53r; Tierras, vol. 2758, exp. 4, fs. 83r-v, 140r-v, 147r-148r. For the two undecided cases see AGN, Tierras, vol. 1676, exp. 1, fs. 26r-v, 27r-38r, 98v-99v; Tierras, vol. 1613, exp. 1, fs. 306r-307v, 310r-312v, 385r-388r.
37. See pages 146 and 148.
38. 1753: AGN, Tierras, vol. 1615, exp. 4, f. 15r. 1803: Archivo Histórico de Hacienda, Mexico City (hereafter AHH), leg. 468, exps. 1, 2. These population totals are derived by multiplying the number of tributaries in each of these years (1753: 2109 tributaries; 1803: 3497 tributaries) by 3.61, which Cook and Borah calculate as the approximate ratio of population to tributaries at the end of the eighteenth century. See their study, *The Population of the Mixteca Alta, 1520-1960* (Berkeley and Los Angeles, 1968), 44-47.
39. In 1787 several residents of the valley testified that in good years one *fanega* of maize planted yielded between 400 to 600 *fanegas*, see AGN, Civil, vol. 1614, exp. 1, fs. 2r, 23r-24r. Assuming that the area seeded by 1 *fanega* was the standard 8.8 acres, we can calculate minimum per acre yield as follows:  $400 \text{ fanegas} / 8.8 \text{ acres} = 45.45 \text{ fanegas}$  yielded per acre, see Gibson, *Astecs*, 309-310, for a discussion of 8.8 acres as the standard area commonly seeded by 1 *fanega*, along with estimates of maize yields in the Valley of Mexico. Although the 1 to 400 ratio for Metztlán is much higher than the 70-125 *fanega* yield estimate he found used for official property evaluations in the late eighteenth century, it

is equivalent to, or lower than, several specific examples of maize yields in the Valley of Mexico.

40. Gibson, *Aztecs*, 311. Woodrow Borah and Sherburne F. Cook, *The Aboriginal Population of Central Mexico on the Eve of the Spanish Conquest* (Berkeley and Los Angeles, 1963), 90.

41. AHH, leg. 391, exp. 2; leg. 468, exps. 1, 2. Data on the number of Indians who sought only seasonal employment on Spanish estates are incomplete, but in one instance 78 Indians worked for a single *hacienda* over a three-year period (1764-1767), with each Indian averaging 57 days of employment, see AGN, Tierras, vol. 961, exp. 1, fs. 47, 107r-116v.

42. AGN, Civil, vol. 1624, exp. 1, fs. 1r-7r, 37r-47r, 52r-58v. Cantú, "Vega de Metztlán," 169-171. AGN, Tierras, vol. 1561, exp. 3; Tierras, vol. 1677, exp. 4; Tierras, vol. 1680, exp. 2; Tierras, vol. 2254, exps. 2, 3; Tierras, vol. 2820, exp. 13.

43. Taylor, *Landlord and Peasant*, 107-110.

44. See Gibson, *Aztecs*, 272, for a discussion of the relationship between Spanish land acquisition and Indian depopulation in the Valley of Mexico.

45. *Epistolario*, VII, 124. AGN, Ramo de Tributos, vol. 22, exp. 6, fs. 9v-10r.

46. Of Quintana's total (15,930 acres) only 4,968 acres came from direct land grants while the remainder, 10,962 acres, consisted of grants purchased by Quintana from other recipients, see AGN, Ramo de Tributos, vol. 22, exp. 8, fs. 6v-8r; Tierras, vol. 1481, exp. 1, fs. 31v-33r. As indicated in footnote 15, Quintana acquired a total of 16,770 acres, but the additional acreage (840 acres) was gained through purchases of Indian land and small Spanish properties already in existence before the land grants of the early seventeenth century.

47. If this assessment is valid, the situation in Metztlán would appear similar to the Puangue Valley in central Chile, where most of the land had been distributed by 1621, with subsequent land activities characterized primarily by shifts in ownership of extant properties rather than by the acquisition of Indian or unclaimed lands. See, Jean Borde and Mario Góngora, *Evolución de la propiedad rural en el Valle de Puangue* (Santiago de Chile, 1956), 47-48.

48. AGN, Ramo de Tributos, vol. 22, exp. 8; Tierras, vol. 1518, exp. 18; Tierras, vol. 1561, exp. 3; Tierras, vol. 1613, exp. 1; Tierras, vol. 1676, exp. 1; Tierras, vol. 1776, exp. 1; Tierras, vol. 1806, exp. 10; Tierras, vol. 1815, exp. 11; Tierras, vol. 2254, exp. 8; Tierras, vol. 2255, exps. 3, 5; Tierras, vol. 2256, exp. 1; Tierras, vol. 2758, exp. 4; Mercedes, vol. 71, f. 107.

49. These issues are discussed in my article, "Land Utilization in Late Eighteenth-Century Metztlán," in *Revista Encuentro*, 17 (1987), in press (the Colegio de Jalisco).