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ECONOMY AND THE STATE IN COLONIAL

SPANISH AMERICA: A SOCIOLOGICAL APPROACH

Luis Valenzuela

VOLUME II

Thesis submitted for the degree of Ph. D. of the University of Keele, Staffordshire 1984
Chapter 6: **Mining and Industry**

In this chapter we will analyse mining production in some depth and will give a rapid overview of colonial manufacturing production. Mining was far less important than agriculture from the point of view of the size of the labour force employed and the physical volume of its production. However, the profitability of mining and its strategic role in the development of a market economy and accumulation of capital permit us to consider it a key sector of the colonial Spanish American economy. Furthermore, as the leading export commodity to Europe, gold and especially silver covered the huge deficit left by an unequal exchange between Spain and the Indies. Industrial production was technically more advanced than agricultural production but similarly lacked markets, due to the competition of European commodities, and subsisted on the fringes of the colonial economy.

The bulk of this chapter consists of an analysis of colonial mining in colonial Spanish America (Section A). In it we first study the legal framework established for mining by the Spanish state and gold production and their main conditioning factors. Then we analyse silver production, the labour systems and technologies employed in silver mining and the problems related to capital investment, taxes and profits in the production of this metal. The final part of this section deals with the production of other metals which reached economic importance during the period, namely mercury, copper and tin. The second section of this chapter provides an overview of industry in colonial Spanish America, with special
Chapter 6: Mining and Industry

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reference to the textile industry. A final section summarises our findings in relation to both mining and industry.

A. Mining

1. Legal framework

Spanish American laws relating to the exploitation of mining deposits were characterised by localism and a marked interest in the fiscal returns of the crown. Legislation was created piecemeal as needs arose in particular areas of the Americas and gave rise to different rules in each region. Systematic ordinances were written in 1574 for the viceroyalty of Peru and in 1584 for Castile. The Castilian ordinances applied to Spanish America as a supplement to its own legislation. In 1680 ordinances were written for the Indies which were complementary to regional legislation. Finally, in the 1780's an advanced mining code was dictated in New Spain and applied with modifications to the other American viceroyalties (Peru, Buenos Aires and New Granada).

As in Spain mines were the property of the crown which could grant rights to individuals for mining. Unlike the peninsula however, miners in the Indies were very soon (1504 in Hispaniola and 1526 on the continent) allowed to exploit mines without previous license from the crown provided that they paid the mining tax and followed the regulations which had been established, (registration, need to exploit the mine in order to retain its usufruct, etc.). Possession rights of the discoverer of a vein were limited to a determined area (several thousands of square yards) leaving, in most cases, plenty of room for other miners to exploit the same or
adjacent veins. The crown limited these rights by banning or reserving for itself the exploitation of certain minerals (mercury, salt, iron) in particular regions and periods according to its fiscal needs. (2)

Direct taxes (mainly the quinto or fifth) were levied on the production of minerals in varying percentages throughout the colonial period. During the first years of colonisation, according to the Capitulaciones (contract) of 1492 with Admiral Columbus, nine tenths of the gold obtained in Hispaniola belonged to the crown. This applied to all the profits from trade in the island (pearls, slaves, spices etc.,) and cannot be considered a mining tax. From 1495 a varying percentage of metallic production was taken by the crown as mining taxes. Initially the 75% tax in force in Castile was applied to the Indies but it was soon reduced to 50% and from 1504 to 20%, hence the name fifth. The latter became the theoretical standard rate and prevailed until the early 18th century when 10% became the norm. (i) (3)

2. Gold

The estimation of gold production in colonial Spanish America presents several problems to the student. Firstly complete series of registered gold are lacking for long periods of time in the different Spanish American regions, although qualitative and indirect indexes of gold obtained by the Spaniards permit the researcher to establish the main

(i) This can be considered a tax ceiling rather than an average since there were many exemptions in favour of the miners. For instance silver miners in Mexico paid only a 10% tax from 1548 and gold miners in different regions paid percentages below 10% during the 16th and 17th centuries. In other regions gold miners were taxed 20% until there was a general reduction to 3% in 1777. (4)
trends of gold accumulation and, in some cases, relatively reliable estimates. Secondly, gold registered in the royal cajas (local branches of the treasury) was only a fraction of the gold obtained, as a variable proportion of it was smuggled to Europe avoiding royal taxation and registration. Finally, in many cases, the data do not permit us to distinguish between gold production and the loot and barter practised by the Spaniards in the first years of the conquest.

We will divide the study of the extraction of gold by the Spaniards into two periods: the first comprising the 16th century and the second the rest of the colonial period. Before c. 1600 Spaniards looted or bartered Indian gold which had been accumulated over centuries and used an abundant and cheap Indian labour force in mining gold placers or veins. The character of these activities (forced labour, unproductive type of mines, limited Indian treasuries, etc.,) led to a rapid exhaustion of gold sources and the displacement of the colonists to other regions or to other activities: further conquests, silver mining, agriculture, etc. From the late 16th century gold production tended to decrease and did not pick up again until c. 1700. By that time, the geography and the character of the labour system predominant in gold mining had started to change as well. Thus probably over 50% of the gold produced in this period came from Colombia although important amounts of gold were mined in Mexico, Chile and Peru in the 18th century. Indian slavery and encomienda labour were being displaced by black slaves and free labour.

Figures for gold acquisition by the Spanish in the Indies are scarce for the 16th century, but an impression of its value and main trends can be obtained by looking at Spanish imports of precious metals, presented in Table 1, and available data on gold production for certain regions (Table 2).
Table 1: American silver and gold legally imported into Spain during the colonial period. (in pesos of 272 maravedis) *

<table>
<thead>
<tr>
<th>period</th>
<th>gold $</th>
<th>$ silver</th>
<th>$ total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1503-10</td>
<td>1,964,269</td>
<td>100.0</td>
<td>1,964,269</td>
</tr>
<tr>
<td>1511-520</td>
<td>3,621,093</td>
<td>100.0</td>
<td>3,621,093</td>
</tr>
<tr>
<td>1521-530</td>
<td>1,939,973</td>
<td>99.69</td>
<td>1,939,973</td>
</tr>
<tr>
<td>1531-540</td>
<td>5,344,714</td>
<td>32.84</td>
<td>36,552,526</td>
</tr>
<tr>
<td>1541-550</td>
<td>10,368,474</td>
<td>59.90</td>
<td>17,309,056</td>
</tr>
<tr>
<td>1551-560</td>
<td>17,691,795</td>
<td>59.86</td>
<td>11,863,491</td>
</tr>
<tr>
<td>1561-570</td>
<td>5,384,746</td>
<td>12.84</td>
<td>36,552,526</td>
</tr>
<tr>
<td>1571-580</td>
<td>4,602,223</td>
<td>6.34</td>
<td>82,269,741</td>
</tr>
<tr>
<td>1581-590</td>
<td>2,123,504</td>
<td>2.47</td>
<td>83,934,313</td>
</tr>
<tr>
<td>1591-600</td>
<td>669,124</td>
<td>1.21</td>
<td>54,630,341</td>
</tr>
<tr>
<td>1601-610</td>
<td>5,530,585</td>
<td>5.99</td>
<td>86,799,708</td>
</tr>
<tr>
<td>1611-20</td>
<td>4,619,339</td>
<td>5.11</td>
<td>85,778,677</td>
</tr>
<tr>
<td>1621-30</td>
<td>2,123,504</td>
<td>2.47</td>
<td>83,934,313</td>
</tr>
<tr>
<td>1631-40</td>
<td>669,124</td>
<td>1.21</td>
<td>54,630,341</td>
</tr>
<tr>
<td>1641-50</td>
<td>4,602,223</td>
<td>6.34</td>
<td>82,269,741</td>
</tr>
<tr>
<td>1651-60</td>
<td>2,123,504</td>
<td>2.47</td>
<td>83,934,313</td>
</tr>
<tr>
<td>1661-70</td>
<td>669,124</td>
<td>1.21</td>
<td>54,630,341</td>
</tr>
<tr>
<td>1671-80</td>
<td>2,123,504</td>
<td>2.47</td>
<td>83,934,313</td>
</tr>
<tr>
<td>1681-90</td>
<td>669,124</td>
<td>1.21</td>
<td>54,630,341</td>
</tr>
<tr>
<td>1729-38</td>
<td>32,119,609</td>
<td>17.21</td>
<td>154,524,077</td>
</tr>
<tr>
<td>1758-67</td>
<td>32,597,287</td>
<td>17.65</td>
<td>152,049,630</td>
</tr>
<tr>
<td>1768-77</td>
<td>23,533,952</td>
<td>13.19</td>
<td>154,835,993</td>
</tr>
<tr>
<td>1784-92</td>
<td>34,416,568</td>
<td>10.00</td>
<td>309,749,112</td>
</tr>
<tr>
<td>1797-99</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1800-09</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1830-39</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* Figures in brackets are our own estimation. Sources: For the period 1503-1660, Hamilton, 1975:17. To establish the value of gold and silver we have used the table of percentages elaborated by Jara, 1965:11. Misprints in this table have been marked with **. For the period 1663-1699 Garcia Fuentes 1980:388-9. For the period 1717-77, Garcia Baquero 1976:11:250-2. For the period 1784-92, Nadal et al (eds) 1974:302. Reales de vellon have been converted into pesos at a rate of 1 peso = 16 reales de vellon. We have estimated the value of gold and silver which was not separated in our source, by extrapolating the proportion of both metals which arrived in Cadiz in 1786 to all parts of Spain and for the whole period (see Hamnett 1971:174). For the years 1797-1819 we have used the figures of Garcia Baquero (1972:127-212 pesetas) for the port of Cadiz and multiplied by the factor 1.33. This factor was derived from the comparison of precious metals exported from Veracruz to Spain in 1802-4 and those received in Cadiz from Veracruz in the same period, the latter were 76% of the former, and comparing the value of precious metals which arrived in Cadiz and in Spain as a whole in 1786, those arriving in Cadiz contributed 76% of the total. (Ortiz de la Tabla 1978:253, Garcia Baquero 1972:163-75; Nadal et al (eds) 1974:302).
As can be seen the trend of growth of these imports was very irregular due to the tempo of the conquest, the different degrees of gold accumulation by the Indian societies and the different pace of exhaustion of gold placers and veins and the Indian labour force. Thus, during the early decades of colonisation (up until c. 1515) the gold obtained in the island of Hispaniola constituted the bulk of the gold sent to Spain. In the following 15 years Hispaniola's gold shipments decreased rapidly but gold production in Cuba and especially Puerto Rico permitted the Spanish Antilles to provide the bulk of gold sent to Spain, despite the production and loot of gold in the new colonies: Mexico, Honduras and Tierra Firme (Caribbean coast from Venezuela to Panama). By 1550 the production of gold in the Spanish Antilles had almost ceased but the acquisition of Peruvian gold was still important, Colombian gold was just beginning to increase in importance and Honduran and Chilean gold production were at their peaks. Finally, from the 1560's until the end of the century gold production became increasingly dominated by Colombian miners due both to the increase in gold production and the decrease in the output of the other major gold producers (Chile, Peru, etc.).

Three other comments are necessary at this point in relation to gold production. Firstly, a quick glance at the figures for production in Colombia and Spanish imports (Tables 1 and 3) reveals that from the 1560's and at least until 1700, the former vastly exceeded the latter. That would indicate that a vast amount of already registered gold was retained and later smuggled to Europe avoiding the legal channels of export.
Table 2: Obtention of gold by the Spaniards in some Spanish colonies during its periods of high production, 16th century (in pesos)

<table>
<thead>
<tr>
<th>region</th>
<th>period</th>
<th>registered gold</th>
<th>estimate</th>
<th>production p.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Puerto Rico</td>
<td>1509-1536</td>
<td>2,008,828</td>
<td>-</td>
<td>71,743.8</td>
</tr>
<tr>
<td>(2) Tierra Firme</td>
<td>1515-1526</td>
<td>601,379</td>
<td>-</td>
<td>50,114.9</td>
</tr>
<tr>
<td>(3) Honduras</td>
<td>1539-1542</td>
<td>-</td>
<td>345,772</td>
<td>c.86,443</td>
</tr>
<tr>
<td>(4) Peru</td>
<td>1531-1550</td>
<td>9,012,431</td>
<td>450,621.5</td>
<td></td>
</tr>
<tr>
<td>(4) Colombia</td>
<td>1591-1600</td>
<td>12,000,000</td>
<td>c.800,000</td>
<td></td>
</tr>
</tbody>
</table>

(2) See Table 5, below.
(4) See Table 3 below.
(5) " " " "

Secondly, while gold exports to Spain (measured in weight rather than value) grew constantly until the 1550's, declining thereafter, silver exports (and production) grew constantly until the end of the century. The result was that the weight of gold as a proportion of the total precious metal exports to Spain decreased from 100% in the first two decades of the 16th century to 97% in 1521-30, to around 14% in the following three decades and to 3% or less thereafter. Given the enormous importance of American treasure for Spain (see below), the different proportions of gold and silver arriving in Spain altered the bi-metallic ratio (value of silver in terms of gold and vice versa) in Europe and America.

Hamilton has calculated the bi-metallic ratio for Spain and it is presented in Table 4. It indicates a continuous depreciation of silver in relation to gold between 1497 and
Table 3: Gold produced and minted in Colombia, Mexico, Chile, Peru during the colonial period (in pesos of 272 maravedies)*

<table>
<thead>
<tr>
<th>Period</th>
<th>Colombia (1)</th>
<th>Mexico (2)</th>
<th>Chile (3)</th>
<th>Peru (4)</th>
<th>Upper Peru (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1531-40</td>
<td>n.d.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>n.d.</td>
</tr>
<tr>
<td>1541-50</td>
<td>945</td>
<td>2,562,236</td>
<td>5,756,994</td>
<td>-</td>
<td>4,784,125</td>
</tr>
<tr>
<td>1551-60</td>
<td>14,397,125</td>
<td>8,099,038</td>
<td>10,217</td>
<td>9,847</td>
<td>8,099</td>
</tr>
<tr>
<td>1561-70</td>
<td>n.d.</td>
<td>5,412,028</td>
<td>9,125</td>
<td>8,099</td>
<td>5,412</td>
</tr>
<tr>
<td>1571-80</td>
<td>4,764,165</td>
<td>4,940,336</td>
<td>11,145</td>
<td>7,288</td>
<td>4,940</td>
</tr>
<tr>
<td>1581-90</td>
<td>1,100,000</td>
<td>5,133,075</td>
<td>115,971</td>
<td>67,312</td>
<td>5,133</td>
</tr>
<tr>
<td>1591-100</td>
<td>2,433,621</td>
<td>87,473</td>
<td>1,103</td>
<td>1,103</td>
<td>2,433</td>
</tr>
<tr>
<td>1601-10</td>
<td>3,063,272</td>
<td>31,388</td>
<td>0</td>
<td>0</td>
<td>3,063</td>
</tr>
<tr>
<td>1611-20</td>
<td>4,201,130</td>
<td>31,105</td>
<td>0</td>
<td>0</td>
<td>4,201</td>
</tr>
<tr>
<td>1621-30</td>
<td>6,207,810</td>
<td>42,7570</td>
<td>61,759</td>
<td>61,759</td>
<td>6,207</td>
</tr>
<tr>
<td>1631-40</td>
<td>9,847,130</td>
<td>160,359</td>
<td>228,533</td>
<td>228,533</td>
<td>9,847</td>
</tr>
<tr>
<td>1641-50</td>
<td>4,668,903</td>
<td>643,162</td>
<td>72,806</td>
<td>72,806</td>
<td>4,668</td>
</tr>
<tr>
<td>1651-60</td>
<td>4,668,903</td>
<td>643,162</td>
<td>72,806</td>
<td>72,806</td>
<td>4,668</td>
</tr>
<tr>
<td>1661-70</td>
<td>8,756,388</td>
<td>2,125,680</td>
<td>19,076</td>
<td>19,076</td>
<td>8,756</td>
</tr>
<tr>
<td>1671-80</td>
<td>6,395,676</td>
<td>5,148,836</td>
<td>2,958</td>
<td>2,958</td>
<td>6,395</td>
</tr>
<tr>
<td>1681-90</td>
<td>8,667,102</td>
<td>6,420,016</td>
<td>923,008</td>
<td>923,008</td>
<td>8,667</td>
</tr>
<tr>
<td>1691-100</td>
<td>(21,638,000)</td>
<td>6,374,114</td>
<td>3,117,841</td>
<td>3,117,841</td>
<td>21,638</td>
</tr>
<tr>
<td>1701-10</td>
<td>(24,219,000)</td>
<td>7,187,874</td>
<td>6,726,808</td>
<td>6,726,808</td>
<td>24,219</td>
</tr>
<tr>
<td>1711-20</td>
<td>(31,000,000)</td>
<td>7,123,836</td>
<td>6,166,984</td>
<td>6,166,984</td>
<td>31,000</td>
</tr>
<tr>
<td>1721-30</td>
<td>(16,000,000)</td>
<td>5,969,252</td>
<td>1,184,404</td>
<td>1,184,404</td>
<td>16,000</td>
</tr>
</tbody>
</table>

* Figures in brackets are our own estimation, see notes below.

(1) For 1541-1740, Colmenares, 1978:308,310. Conversion from grammes to pesos of 272 maravedies was done by using the factor 0.151826 for the first three decades, 0.273075 for the decades 1571-80 through 1660-10, and 0.5216088 for the period 1611-40. These factors were worked out by using the definition of maravedi given by Hamilton (1975:44-5) as 42.29/450 of pure silver. To transform this value into gold we used the table below.

(2) For the decades 1641-1740 we have used the factor 0.6913043 which corresponds to the ordinances of the royal mint of Bogota of 1620. For the decades 1781-90 and 1791-1800 we have averaged the partial data of minting provided by Rubel (1966:192-200 and added 4,000 to each for export of unminted gold. Data for the 19th century comes from McGreevey 1971:46 and includes estimated contraband not considered in the previous figures.

(3) Figures for the period 1691-1749 and 1811-20 come from Colmenares 1978:312. These production figures have been multiplied by the factor 1.0615876 to take into account the price rise.
difference of the gold sold to the mint (128.11 pesos per mark) and the final value (136 pesos per mark). Minted gold figures for 1750-1810 come from Romano 1960:262-3 and do not include the year 1810. For the period 1545-60 an average annual output of 2,000 kg per annum has been estimated (c. 830,000 pesos). Another source estimates gold production up to 1560 at over 11.5 pesos. We have assumed an equal production for each of these years and none before 1545. For the following three decades we have used the crown rent of 1568 (40,000 pesos) 1571 (32,000 pesos), 1583 (2,000 pesos) assumed that all that rent was due to the gold tax (20% of production) and extrapolated these figures for the whole decade. The result is, of course, exaggerated and represents only a maximum figure (see Jara 1971:29-30; Villalobos et al. I:121-3, II:168).

(4)(5) Joint figures for Peru and Upper Peru come from Jara 1967:604-7. Figures for the years 1558-61 and 1566 are missing. (4) See Appendix 4. Given the paucity of data these must be considered minimum figures especially for the 17th and early 18th centuries. (5) See Appendix 3.

Table 4: Bi-metallic ratios in Spain (*)

<table>
<thead>
<tr>
<th>Period</th>
<th>silver</th>
<th>gold</th>
<th>Bi-metallic ratio</th>
<th>Value of a gram of gold of 22.5 carat (in maravides)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1497-1536</td>
<td>10.11</td>
<td>:</td>
<td>1</td>
<td>107.57862</td>
</tr>
<tr>
<td>1537-1565</td>
<td>10.61</td>
<td>:</td>
<td>1</td>
<td>112.89903</td>
</tr>
<tr>
<td>1566-1608</td>
<td>12.12</td>
<td>:</td>
<td>1</td>
<td>128.96665</td>
</tr>
<tr>
<td>1609-1642</td>
<td>13.33</td>
<td>:</td>
<td>1</td>
<td>141.84204</td>
</tr>
<tr>
<td>1643-1650</td>
<td>15.45</td>
<td>:</td>
<td>1</td>
<td>164.40056</td>
</tr>
<tr>
<td>1650-1850</td>
<td>c.15.00 : 1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


1643, stabilising thereafter. Finally, although no general figures are available to distinguish between the gold that was loot and the gold mined by the Spaniards or under their direction, it is safe to assume that the impact of gold loot was important only during the first decades of conquest in each colony. In Tierra Firme, the only region for which we have separate figures, there was a decisive switch from gold loot to gold production in 1521. Up until that year, that is 12 years after the beginning of the conquest in the territory,
loot provided over 60% of all the gold obtained; during the
next few years that proportion fell to under 25% (see Table 5).
In other colonies the situation seems to have been even more
marked. Thus in Peru the loot of the treasure of Atahualpa
(1533) and the spoils of Cuzco (1534) alone amounted to 3,427,500
pesos in gold or almost 60% of all the gold obtained by the
Spaniards in Peru during 1531-40. Similarly, in Colombia, the
372,287 pesos looted in 1537 and the 473,310 pesos looted
between 1539-44 (note the decrease in the annual average) were,
if added together, almost equal to the total gold production of
the decade 1541-50. (6)

Table 5: Gold produced and looted in Tierra Firme 1515-26
(in pesos)

<table>
<thead>
<tr>
<th>Year</th>
<th>Loot</th>
<th>%</th>
<th>Production</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1515</td>
<td>46,296.4</td>
<td>85.6</td>
<td>7,771.1</td>
<td>14.4</td>
<td>54,067.5</td>
</tr>
<tr>
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<td>76.2</td>
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<td>32,249.4</td>
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<td>91.8</td>
<td>7,802.8</td>
<td>8.7</td>
<td>30,075.1</td>
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<td>51,841.1</td>
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<td>85.9</td>
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<td>30,836.0</td>
<td>86.0</td>
<td>35,873.2</td>
</tr>
</tbody>
</table>

Total 307,803.6 51.2 293,576.1 48.8 601,379.7


During the 16th century gold was produced almost exclusively
by Indian labour under the encomienda system or slavery. Up
to the 1520's gold mines in Hispaniola, Cuba, Puerto Rico and
Tierra Firme were associated with the existence of a cheap
Indian labour force, and the Indian depopulation of these areas
caused the collapse of gold production, despite the importa-
tion of Indians from other areas and some black slaves. In
the gold mines of Honduras, Peru, Chile and Colombia black slaves were much more in evidence, although their high cost prevented employment of them in large numbers and encomienda Indians and some Indian slaves made up the bulk of the labour force there until the end of the 16th century. (7) Gold mining techniques seem to have been fairly simple at the time. Gold found in alluvial placers was washed with pans or by running water over a specially built channel where the alluvion was placed. In gold veins the process was more complex since it involved the extraction, stamping and washing of the ore, but relatively simple techniques of excavation or refining (like smelting or amalgamation) were hardly used. Despite the technical simplicity of the process, the construction of channels, the deviation of the course of streams, etc., sometimes involved a high cost in terms of use of labour power and, for entrepreneurs with no encomienda Indians (or other source of cheap labour), this represented a high investment. (8)

Tentative figures for gold production in the 17th and 18th centuries have been presented in Table 3 above. This data corresponds mainly to gold coinage and registered gold and therefore does not take into account gold smuggled out of the colonies. For the late 18th century, Colombian contemporaries estimated gold contraband at between 200,000 and 2 million pesos per year and a 19th century scholar has put the total production of gold (including contraband) of 18th century Colombia at 205 million pesos. Similarly for Chile it was estimated that 25 to 40% of the gold was smuggled and therefore unaccounted for. (9) Despite these limitations we can assume that the proportion of unregistered gold was roughly the same for each decade and therefore trends of growth and decline shown in the
table are accurate. (ii) These trends were a) a decrease in
the gold output from 1600 up to the end of the 17th century,
b) the increase of gold production from c. 1700 to the beginning
of the 19th century and c) the appearance of new centres of
gold production (Mexico and Chile) which complemented the sus-
tained production of Colombia. Apart from the richness of the
mines, of which very little is known, the variation in the level
of gold production depended on the size and cost of the labour
force, geographic expansion of the areas under Spanish control,
the associated problems of supply and transport of foodstuffs
and raw materials to the mining camps, technology and capital
and the level of taxation. We will examine these variables
below, with special reference to Colombia for which more data
is available.

Gold production in Colombia was closely linked with the
supply and cost of the Indian and slave labour force and the
growth of a sector of poor whites and mestizos. The first
crisis of production occurred in the Bogota district around
1580 due to the decrease in the number of encomienda Indians in
the region as well as the relative exhaustion of its gold
deposits. This crisis does not appear in Table 3 since new,
richer gold deposits were discovered in Caceres (1576),
Zaragoza (1580) and Remedios (1590) which more than compensated
for the fall in production of the Bogota district. In the new

(ii) These trends are confirmed by the data on Spanish gold
imports (Table 1) which indicate a constant decrease of the
imports from 5.5 million in the first decade of the 17th
century to just over a quarter of a million in the 1680's.
From the beginning of the 18th century the trend was reversed
and during the 51 years for which data are available, gold
imports were far higher than in the first half of the colonial
period (1503-1660). During the 17th and 18th centuries other
Spanish American regions not included in the table produced
small amounts of gold but they are not significant for our
analysis. (10)
districts the lack of an abundant Indian population made the importation of a great number of black slaves (some 2 - 3,000 in Zaragoza alone in the 1590's) necessary. This investment was justified by the richness of the first strikes, which permitted Colombia to reach a production level in the 1590's which was not reached again until the late 18th century. The diminishing returns of the placers and the difficulties of supplying the labour force with foodstuffs, where little or no surplus from the Indian communities was available, created a serious conflict between the miners and their creditors, the slave traders, who had to embargo the unsuccessful miners. The decision of the crown to support the miners by banning the embargo of means of production (including the slaves) in 1596 limited the availability of credit for the miners. As a result the flow of slaves for the mines was substantially reduced in the early 17th century and gold mining was affected by a secular contraction. (11) The increase in gold production in 18th century Colombia was due to three main causes: 1) The geographic expansion towards the Pacific coast and the incorporation of the province of Choco under Spanish control (i.e. the submission of rebel Indians). The Choco was definitely under control by c. 1680 and produced between 25 and 50% of the total gold output of Colombia during the 18th century. 2) The increase in the number of slaves available for mining, which in the Choco grew from under 1,000 in the 1700's and 4,000 in the 1750's to a maximum of over 7,000 in the 1780's. 3) The population increase of the white and mestizo sectors in the district of Antioquia. In this district, which by the
early 19th century was producing 25% of Colombian gold, two thirds or more of the production was the result of the efforts of white or mestizo independent panners.\(^{(11)}\)(12)

The technology used in the gold placers seems to have changed little since the 16th century and only the increase in the size of the working gangs and the division of labour within them in the 18th century indicate an increase in the productivity of labour. In the case of gold vein mining however, the use of gunpowder and mercury in Chile, and probably elsewhere, indicates a more complex technical process and, in the case of Chile, the dependence of miners on merchants and hacendados who provided the capital necessary to buy these raw materials and the accessories needed in deep shaft mining and refining the gold with mercury. Another technical improvement which increased gold production was the apartado process (separation of gold from other metals, usually silver). This technique had been practised in Mexico since the 1550's and a House of Apartado was in operation at least from the beginnings of the 18th century. The importance of this process for gold production is demonstrated by the fact that the silver mines of Guanajuato produced during the period 1766-1803, 5,850,000 pesos in gold or around a fourth of the

\(^{(11)}\) The growth of the white and mestizo population engaged in gold mining also explains the rise in gold production in Chile and the provinces of Sonora and Sinaloa where Mexican gold mines were concentrated. Indian resistance delayed or prevented mining activities in these areas as well. In 1599 an Indian general uprising in southern Chile made the Spaniards lose the gold deposits and Indians which provided 80% of Chilean gold production, while in Sonora and Sinaloa the Indian rebellions of the mid 18th century shut down mining and farming activities until order was restored in the 1770's. (13)
Thus, the enormous increase in silver production during the 18th century (see Table 6) was likely to have produced a proportional increase in the Mexican gold output. Finally, gold production benefited from the establishment of Royal Mints and/or the authorisation of gold minting (1679 in Mexico, 1733 in Guatemala, 1749 in Chile, 1620 in Colombia). This permitted the standardisation of the fineness of the gold circulating in the economy or being exported and, in some cases, an increase in the price paid to the miners, thus reducing or eliminating the profits of the bullion dealers. (15)

To a certain extent, gold mining was a popular activity which required little initial capital. However, as soon as the scale of production or difficulties associated with the supply of raw materials and foodstuffs or technical problems increased, so did the need for capital which was then required to increase the gangs of slaves or to attract and retain peons, through money advances and debt peonage, and to pay for a higher quantity of raw materials and foodstuffs. Capital, in the hands of merchants and landowners, controlled a great deal of the profits of Colombian and Chilean gold miners through usurious loans to finance their activities. However, by the 18th century Colombian miners, or at least the elites, seem to have achieved financial independence via high profitability and investments in land and commerce. (16)

(iv) The average proportion of silver and gold found in silver ores in the Guanajuato district during the period was 1:0.0023 in weight and 1:0.037 in value (pesos). Applying this proportion to the total Mexican silver production (see Table 6) from 1701-1820 we obtain a speculative gold production derived from silver mining of 55.9 million pesos or 84.7% of the gold actually minted in the period. Unfortunately, we do not know if gold was obtained from silver ore in Peru and Upper Peru, major colonial silver producers. In Chile where silver production was relatively low, the process was not practised. (14)
A final factor which tended to increase the level of production of gold during the 18th century was the decrease of the royal fifth on gold to 3% for all the Spanish American territories in 1777. The effect of this measure was not the same in all colonies since in some places reductions from the theoretical 20% tax were already in operation. In Chile, for instance, a 3% tax was charged at least from the beginnings of the 18th century, while in several treasuries of Colombia and Peru only a 5% tax was levied on gold. Data in Appendices 3 and 4 show the impact of the measure in Peru and Upper Peru. The gold registered in the treasury of La Paz where the tax was lowered from 30% to 3%, increased 52 fold between the 1760's and the 1770's and continued to increase until the end of the century. In Potosi, although the reduction was from 5% to 3%, registered production increased 5 fold between the 1770's and the 1780's. Finally, several other treasuries (Trujillo, Arequipa, Chicuito-Puno, etc.,) began to register gold just after the tax reduction. The only treasury which failed to register increased gold production in the 1780's was Lima. However, a previous reduction of the tax from 10% to 5% in Lima had increased production 4 fold between the 1750's and 1760's. (17)

3. Silver

The problems faced by the student of silver production in colonial Spanish America are also enormous. The series of registered production are incomplete or lacking for several important silver producing regions. Fortunately information about silver coinage enables us to supplement that information and to establish the main trends of silver production in most
A final factor which tended to increase the level of production of gold during the 18th century was the decrease of the royal fifth on gold to 3% for all the Spanish American territories in 1777. The effect of this measure was not the same in all colonies since in some places reductions from the theoretical 20% tax were already in operation. In Chile, for instance, a 3% tax was charged at least from the beginnings of the 18th century, while in several treasuries of Colombia and Peru only a 5% tax was levied on gold. Data in Appendices 3 and 4 show the impact of the measure in Peru and Upper Peru. The gold registered in the treasury of La Paz where the tax was lowered from 30% to 3%, increased 52 fold between the 1760's and the 1770's and continued to increase until the end of the century. In Potosí, although the reduction was from 5% to 3%, registered production increased 5 fold between the 1770's and the 1780's. Finally, several other treasuries (Trujillo, Arequipa, Chicuito-Puno, etc..) began to register gold just after the tax reduction. The only treasury which failed to register increased gold production in the 1780's was Lima. However, a previous reduction of the tax from 10% to 5% in Lima had increased production 4 fold between the 1750's and 1760's. (17)

3. Silver

The problems faced by the student of silver production in colonial Spanish America are also enormous. The series of registered production are incomplete or lacking for several important silver producing regions. Fortunately information about silver coinage enables us to supplement that information and to establish the main trends of silver production in most
regions. Contraband and fraud in the registration of silver were also a serious problem for the treasury officials and diminish the value of the official statistics available. As compared with gold production it was easier for the Spanish crown to reduce the amount of unaccounted silver for two reasons. Firstly, most of the silver produced in Spanish America from the late 16th century was refined by the amalgamation process which required the use of mercury over which the crown had an effective monopoly. This permitted the royal officials to check on the production of silver mines and to demand from them the registration of silver in proportion to the mercury they received. Secondly, the bulkier character of silver (in relation to gold) and the minting of silver very early in the main producing areas (1530's in Mexico, 1560's in Peru and 1570's in Upper Peru) made contraband in coined silver less attractive.

Available data on silver production or coinage have been assembled in Table 6 along with our own estimates for some regions. This does not take into account all the regions where silver production took place during the colonial period. Thus Argentina and Ecuador had silver mines but production seems to have been insignificant.\(^{v}\) A more serious problem arises from the lack of data for Central American silver for

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\(^{v}\) These assertions are based on a series of facts. Firstly the shipment of mercury from Spain to America during the 16th and 17th centuries was only significant for Mexico, Honduras, Colombia and Peru while mercury from Huancavelica probably supplied only Peru and Upper Peru and Pacific South America, (see Table 16). For the low production of Argentinian silver mines see Congreso 1970:403-18. Silver mines other than Mariquita were of little importance in Colombia (Ruiz 1973: 122-3). See also Bargallo 1955:304.
several decades. Permanent lack of labour and capital, which affected silver mines throughout the colonial period in Central America, made it unlikely that the colony ever surpassed 2.5 million pesos per decade during this period and therefore its omission does not greatly affect our conclusions. The main problem presented by silver production at this stage of the research is the lack of complete data on production or coinage for Lower Peru during the 17th and early 18th centuries, (see Appendix 6). Despite these limitations some trends can be detected in the table.

Firstly, Spanish American silver production as a whole had two phases of growth in the 16th and 18th centuries, followed by phases of decay in the 17th and early 19th centuries. Major changes in the level of production other than the growth in production associated with the discovery of new, rich mines in the first half of the 16th century occurred in the 1570's, 1580's and 1770's. In these three decades the rate of growth was over 35% and, as we shall see later, was associated with the use and supply of mercury. Secondly, Peru and Mexico accounted for the bulk of silver production throughout the colonial period providing always over 95% of the silver produced in the Indies and in most decades over 99%. Thirdly the relative importance of both producers changed as the period progressed. The 16th century was clearly dominated by silver production in Peru which accounted for over 60% of total production while, during the 18th century the situation was reversed and Mexico provided around 70% of total silver production. Finally, within Peru, most of the silver production occurred in Upper Peru (mainly Potosi). Thus during the 16th century the silver production of Potosi alone
Table 6: *Silver production and coinage in Spanish America 1521-1820*

*(In thousands of pesos of 272 marcs)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Lower Peru silver production</th>
<th>Upper Peru silver production</th>
<th>Mexico silver coinage production</th>
<th>Chile silver production</th>
<th>Mariquita silver production (Colombia)</th>
<th>Honduras silver production</th>
<th>Total</th>
</tr>
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<td>-</td>
<td>-</td>
<td>33,260+</td>
</tr>
<tr>
<td>1541-550</td>
<td>16,503.6+</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>42,503+</td>
</tr>
<tr>
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<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>(212.8)</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
<td>(860.2)</td>
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<td>-</td>
<td>(106.4)</td>
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<td>n.d.</td>
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<td>-</td>
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<td>1661-670</td>
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<td>830.8</td>
<td>n.d.</td>
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<tr>
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<td>-</td>
<td>-</td>
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<td>1,818.0+</td>
<td>(41,911.8)</td>
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<td>211.3</td>
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<td>-</td>
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<td>(55,417.6)</td>
<td>-</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
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<td>31.1</td>
<td>-</td>
<td>-</td>
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<td>(90,399.8)</td>
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<td>44.0</td>
<td>-</td>
<td>-</td>
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<td>44.0</td>
<td>-</td>
<td>-</td>
<td>176,921</td>
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<td>(124,683.2)</td>
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<td>44.0</td>
<td>-</td>
<td>-</td>
<td>177,545</td>
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<td>(114,837.1)</td>
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<td>101.9</td>
<td>-</td>
<td>-</td>
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<td>22,971.7</td>
<td>(168,423.4)</td>
<td>-</td>
<td>389.6</td>
<td>-</td>
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<td>(187,868.9)</td>
<td>-</td>
<td>850.5</td>
<td>-</td>
<td>-</td>
<td>217,135</td>
</tr>
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<td>40,349.2</td>
<td>(221,629.1)</td>
<td>-</td>
<td>1,245.5</td>
<td>-</td>
<td>-</td>
<td>261,316</td>
</tr>
<tr>
<td>1811-820</td>
<td>40,581.4</td>
<td>(215,624.3)</td>
<td>-</td>
<td>1,170.0</td>
<td>-</td>
<td>-</td>
<td>257,211</td>
</tr>
</tbody>
</table>

* Figures in brackets are my own estimate. Hyphens indicate insignificant or no production.

1) The combined figures for Peru and Upper Peru for the 16th century come from Jara 1967:604-7.

2) Although there is no production for the years 1545, 1558-60, 1561 and 1566, figures for 1600-1770 must be considered minima figures. See Appendix 6 for sources and explanation.
Table 6 cont'd:

the figures presented here must be considered fairly close to reality. (See Appendix 5).

(3) Figures up to 1690 come from Howe 1949:453-4, where they were expressed in periods different from ours. We have worked out the decennial coinage by calculating the annual average in each period, silver coinage only started in 1537. Figures for 1691-1800 come from Humboldt 1966:387 and those for the rest of the period from Howe 1949:458.

(4) For the period 1690-1719 and 1810-19 Carmagnani 1973:202. For the period 1750-1809 we have used the coinage figures of Romano 1960:262-3. For the 17th century see Villalobos et al 1974, II:168.

(5) Ruiz 1972: passim, especially 16-19 and graph opposite page 41 from which registered production has been worked out. Silver production in Mariquita started in 1585 but did not become important until the following decade. After 1700 production seems to have dropped to an insignificant level.

(6) Figures for production shown here are very hypothetical up until 1780. For the 16th and 17th centuries they are based on the availability of mercury in the colony and, assuming production by the amalgamation of 110 silver marks per quintal received, and adding an additional 15% to take into account silver produced by smelting (see Table 16, and Brading et al 1972:597 n). Since big silver strikes occurred in 1569 and 1578 and no mercury was received in the colony until the late 1570's we assume that production prior to 1571 was insignificant. During the 18th century major silver strikes occurred in 1725 and 1744 and thus we assume there was a very low level of silver production in the first two decades of the century. This is supported by a very low fifth tax in 1713-17. Figures for 1731-60 have been obtained from the coinage figures of 1733-57 in Wortman 1982:115, assuming that 80% corresponded to silver. Figures for 1781-1800 have been obtained by using average precious metal production for the periods 1795-1810 and 1810-1825 (146,255 pesos and 254,025 pesos p.a. respectively) and assuming that 80% of that value corresponded to silver (Newson 1982:passim, especially 19; Floyd 1961a: 108; Wortman 1982: 146,243).

(7) Total production has been estimated by simply adding the production of the different regions except for the decade 1521-1530 for which the total value of the silver exported to Spain was considered (Hamilton 1975:53, 44-5).

accounted for over 80% of the total silver production of Peru as a whole. Similarly, during the 18th century Upper Peru produced over 60% of all the silver produced in Peru, although the rate of growth of Lower Peruvian production was far higher than that of Upper Peru.

Silver production in colonial Spanish America was the result of a series of factors such as the presence and discovery
of rich silver mines, the availability of cheap labour, capital to finance mining operations, technology adequate for this, the supply of the means of production to carry out mining etc. In the following pages we will deal with the geography and chronology of the discovery and exploitation of mines, the labour systems employed in mining and its technology and financing. The data available to us does not permit a full coverage of all these aspects in all areas of silver production but enough research has been done on major centres of production on all these matters. This, plus information on some of these issues for other productive centres or regions, permits us to obtain a relatively accurate picture of colonial silver mining.

The beginnings of silver mining in Mexico are somewhat obscure. It seems that the first silver mines were discovered in 1525 in central Mexico and that an early silver boom occurred in Taxco (discovered in 1534) in the early 1540's. However, the real take off for silver mining in Mexico took place in the late 1540's and 1550's when a series of mines were discovered in northern and central Mexico. These included Zacatecas, Guanajuato, Sombrerete, etc., in the north and Pachuca and Real del Monte north east of Mexico City. Major silver mining areas continued to be discovered, notably San Luis (1583) and Parral (1631), Santa Eulalia (1704), Bolanos (1737) and Catorce (1778), but the main colonial producing areas had already been discovered and settled by the 1560's. In Peru Porco was the first silver mine to be exploited by the Spaniards (from at least 1540). The discovery of Potosí (1545) eclipsed all subsequent discoveries in the 16th century: Oruro (1557) as the two former in Upper Peru, and Huantajaya (1566) and Castro Virreina (1555) in Lower Peru. In the rest
of the colonial period important discoveries were made in lower Peru: Pasco (1630) Chicuito (1619 and 1657) Cailloma (before 1630) and Huelgayoc (1771) and Carangas (c. 1650) in Upper Peru, but none of these districts seem to have had a major impact on the mining economy of Peru until the second half of the 18th century. (18)

The mere indication of discovery of mines in districts which became important silver producers in the colonial period is deceptive since all districts had different degrees of development of silver exploitation, phases of decay and revival associated with the discoveries of new mines within the same districts, problems of flooding, refining and labour force, etc.

In Table 7, below, we have assembled data on various important mining districts in Mexico and Peru indicating the date of the first discovery, that of major development, and finally, the establishment of a branch of the treasury, which was the tacit recognition by the state of the importance of the district as a producer and the necessity of taxing silver production \textit{in situ}. It can be noted that only three districts (Potosi, Guanajuato and Zacatecas) produced almost half of the total estimated production of colonial Spanish America. Also worth noting is the fact that some of these districts (Potosi, Zacatecas, Catorce, Bolanos) produced an enormous output of silver almost immediately after their discovery and had a major impact on the mining economy of their regions. In other cases (Guanajuato, Sombrerete, Oruro) a long period of time elapsed before the districts experienced a real boom.

To explain these different developments a series of variables has to be taken into account. Apart from labour,
Table 7: Discovery, exploitation and production of major silver mining districts in Peru and Mexico during the colonial period (in pesos)

<table>
<thead>
<tr>
<th>District/year of discovery/year of foundation of Royal Treasury</th>
<th>Periods</th>
<th>Silver production</th>
<th>Average annual production</th>
<th>Percentage of total production of region</th>
</tr>
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<tbody>
<tr>
<td>(1) Potosí (1545)</td>
<td>1549-50</td>
<td>4,492,696</td>
<td>2,995,130</td>
<td>46.1 close to 100</td>
</tr>
<tr>
<td>(1545)(1549)</td>
<td>1551-1600</td>
<td>278,889,255</td>
<td>5,771,785</td>
<td>-</td>
</tr>
<tr>
<td>(1601-1700)</td>
<td>1701-1800</td>
<td>220,324,335</td>
<td>2,203,421</td>
<td>-</td>
</tr>
<tr>
<td>(2) Oruro (1557)</td>
<td>1607-10</td>
<td>4,300,320</td>
<td>1,075,080</td>
<td>-</td>
</tr>
<tr>
<td>(1595)(1607)</td>
<td>1611-30</td>
<td>8,230,365</td>
<td>411,518</td>
<td>-</td>
</tr>
<tr>
<td>(1631-50)</td>
<td>1631-50</td>
<td>4,797,273</td>
<td>239,863</td>
<td>-</td>
</tr>
<tr>
<td>(1651-70)</td>
<td>1651-70</td>
<td>1,323,896</td>
<td>66,194</td>
<td>-</td>
</tr>
<tr>
<td>(1671-90)</td>
<td>1671-90</td>
<td>1,231,333</td>
<td>61,566</td>
<td>-</td>
</tr>
<tr>
<td>(1691-1710)</td>
<td>1691-1710</td>
<td>2,940,219</td>
<td>147,010</td>
<td>-</td>
</tr>
<tr>
<td>(3) Zacatecas (1546)</td>
<td>1560-69</td>
<td>10,733,307</td>
<td>1,073,330</td>
<td>37.8</td>
</tr>
<tr>
<td>(1548)(1552)</td>
<td>1570-1600</td>
<td>32,631,253</td>
<td>1,087,708</td>
<td>37.4</td>
</tr>
<tr>
<td>(1600-1699)</td>
<td>1700-1799</td>
<td>172,089,230</td>
<td>2,136,422</td>
<td>36.5</td>
</tr>
<tr>
<td>(1800-1819)</td>
<td>1900-1900</td>
<td>56,434,567</td>
<td>2,921,728</td>
<td>19.1</td>
</tr>
<tr>
<td>(4) Sombrero (1550b)</td>
<td>1683-90</td>
<td>3,307,715</td>
<td>433,446</td>
<td>9.7</td>
</tr>
<tr>
<td>(1645)(1681)</td>
<td>1691-700</td>
<td>3,016,709</td>
<td>301,670</td>
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<tr>
<td>(1701-710)</td>
<td>1713-720</td>
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<td>(1640's)(1666)</td>
<td>1675-83</td>
<td>5,638,348</td>
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<tr>
<td>(1691-99)</td>
<td>1715-64</td>
<td>7,123,935</td>
<td>791,539</td>
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<tr>
<td>(1725-30)</td>
<td>1725-30</td>
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<tr>
<td>(1800-19)</td>
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<tr>
<td>(6) Santa Feulvia</td>
<td>1703-37</td>
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<td>23.5</td>
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<tr>
<td>(1720's)</td>
<td>1737-61</td>
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<td>1,160,000</td>
<td>10.8</td>
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<tr>
<td>(1761-90)</td>
<td>1761-90</td>
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<td>533,333</td>
<td>3.4</td>
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<tr>
<td>(1790-1825)</td>
<td>1790-1825</td>
<td>11,000,000</td>
<td>316,285</td>
<td>-</td>
</tr>
<tr>
<td>(7) Bolanos (1736)</td>
<td>1752-60</td>
<td>17,117,453</td>
<td>1,901,939</td>
<td>12.3</td>
</tr>
<tr>
<td>(1747)(1752)</td>
<td>1761-70</td>
<td>6,226,632</td>
<td>622,663</td>
<td>5.4</td>
</tr>
<tr>
<td>(1771-80)</td>
<td>1771-80</td>
<td>8,132,740</td>
<td>813,274</td>
<td>4.8</td>
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<tr>
<td>(1781-90)</td>
<td>1781-90</td>
<td>6,114,036</td>
<td>611,403</td>
<td>3.2</td>
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<tr>
<td>(1791-1800)</td>
<td>1791-1800</td>
<td>4,126,110</td>
<td>412,611</td>
<td>1.8</td>
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<tr>
<td>(8) Catorce (1773)</td>
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<td>8.3</td>
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<td>1781-82</td>
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<tr>
<td>(1783-84)</td>
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<tr>
<td>(1790's)</td>
<td>c. 40,000,000</td>
<td>c. 4,000,000</td>
<td>18.0</td>
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</table>
Table 7: Discovery, exploitation and production of major silver mining districts in Peru and Mexico during the colonial period (in pesos)

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<td>1700-1799</td>
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<td>1,720,895</td>
<td>14.0</td>
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<td>154,700</td>
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<td>1,406,543</td>
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<td>1,160,000</td>
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<td></td>
</tr>
</tbody>
</table>
Notes to Table 7:

(1) Bargallo 1955:73-5; Santa Maria 1973:74. For production figures see Appendix 5.

(2) Congreso 1970:561-67. For production figures see Appendix 5.


(5) Bargallo 1955:62; Bakewell 1971:20-1, 184. We have inferred an important growth in Guanajuato's silver production since the provision of mercury increased almost two fold in absolute terms and in relation to the rest of the Mexican mining towns, from the 1530's to the late 1640's. (Lang 1977:362-3). For the 17th century figures for production came from Klein and TePaske 1981: 126-7. For the conversion of taxes to actual silver production we have assumed that all silver paid 10.9% and none the alternative tax of 20.8% so our figures are somewhat inflated. This assumption derives from the fact that in Zacatecas from 1671-99, less than 0.5% of all silver paid 20.8% in taxes and the proportion was even smaller in Sombrerete during 1683-99. (Bakewell 1971:243-3, 249). Figures for 1715-64 come from Morin 1979:94. We have subtracted 3% to allow for the gold included in these figures. For the rest of the period see Garner 1980:163.


(8) Brading 1969:319, 331-3. Production for 1752 - 80 has been obtained by multiplying the production in marks by 8.5, its final value after minting.

technology and capital which will be dealt with separately, reference must be made to the problems of supply and defence of the mining towns and to the silver content of the ore extracted in each mining district. In the viceroyalty of Peru Indian warfare or rebellion did not directly affect silver production except for a brief period during the early 1780's. In northern Mexico the effects of Indian warfare were important during the second half of the 16th century and Indian resistance continued in fringe areas until the end of the colonial period,
Map 5: Colonial mining districts in Spanish South America
disrupting the lines of communication between central Mexico and the far north. Raids on mining camps, cattle ranches and Spanish settlements created problems for the mining communities by threatening the lives of miners and workers, raising the cost of transport and the price of foodstuffs, due to the incapacity of the Spaniards to protect their livestock and crops, and deferring the exploitation of mines in several mining districts. Furthermore up to the 1580's the cost of defence was in the main shouldered by the miners themselves, thus reducing the possibility of capital accumulation in the sector. (19)

The supply of foodstuffs, raw materials, tools, textiles, alcoholic drinks etc., constituted a high expenditure for miners and workers in districts without a good agricultural hinterland and distant from the centres of distribution of European and Spanish American commodities. Naturally these problems of supply were aggravated when increased silver production attracted immigrants from the surrounding areas and prices soared. As we have shown in preceding chapters, urban settlements stimulated agricultural production in their hinterlands but at the same time pushed up local prices and thus increased the cost of non-agricultural production. The exact effect of the supply of raw materials and other necessities to the mining camps is difficult to gauge without comparative information about prices, the exact level of demand, costs of production of silver, etc. However, a brief examination of the cases documented by the historical literature can put the problem into perspective. The distribution and cost of transport of mercury, a key element in silver production, in the various mining towns can also help us to understand the difficulties faced by different mining camps and give us a clue
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to the problem of transport in general.

Potosí was located in the Bolivian high plateau, over 13,000 feet above sea level. No agriculture or stock raising was possible within a radius of 15 miles around the city due to the barrenness of the area and grain and livestock had to be brought from the main Bolivian valleys as well as Chile and Argentina. Other commodities like textiles, wine and coca came from an even wider range of sources including lower Peru, Ecuador, Argentina, Mexico, Europe and Asia. A contemporary source estimated the total value of the consumption of the city at c. 5 million pesos annually during the first years of the 17th century. This consumption consisted of clothes (25%), foodstuffs (15%), wine (10%), coca (7%), raw materials for the mining industry (at least 19%) and other items of use for both the industry and individual consumers (negro slaves, wood, etc.). Of the raw materials for mining mercury was the most important (402,500 pesos or 8.1% of the total imports). For the supply of this crucial element the port of Arica, some 250 miles away on the Pacific coast, was used. It cost around 10 pesos to carry a hundred weight of mercury from Arica to Potosí and since the sale price in the latter was 70 pesos this phase of the trip alone represented 14% of the final price.

Similarly, Oruro's dependence on distant valleys for the supply of agricultural products and on Potosí, Arica, Lower Peru, etc, for other items made the cost of exploitation of mines very high. As for Mexico, various situations occurred. The Guanajuato district was located in the core of the Bajío, an area of abundant agricultural and textile production, and only 170 miles away from Mexico city, the centre of distribution for many commodities (many imports including mercury and
textiles). Other mining towns even closer to Mexico City like Pachuca, Tasco and Real del Monte, were probably in an even better position for supplying their mines and workers with foodstuffs and raw materials. In the mining towns of the far north however, supply was a serious problem. For instance, the district of Santa Eulalia was unable to establish agricultural production on a sound basis and could not feed its population during the 18th century having to rely on grains and livestock from Parral (over 100 miles to the south). Parral was, in the main, self-sufficient in livestock and agricultural products, but obviously the long distance to Mexico City handicapped silver production by making the price of mercury and other commodities too expensive. Zacatecas was in an intermediate situation, since, although relatively close to Mexico City, the barrenness of its hinterlands forced it to rely on distant areas (more than 100 miles away) for the supply of over 50% of the grain it required. A comparative view of the cost of transport from Mexico City to some of the mining towns can be obtained by looking at Table 8. It can be seen that transport could increase mercury prices up to 25% in the more distant places. (20)

The silver content of the ores mined in colonial Spanish America seems to have been of crucial importance in determining the pace of settlement and exploitation of the different mining districts. Problems of Indian warfare, difficulties of supply, labour force, capital and technology were offset by the richness of the ore extracted in some mining camps, which attracted a flow of miners and workers and the supplies necessary for silver production. The settlers and sometimes the
Table 8: Prices of the transport of mercury from Mexico City (pesos per hundredweight)

<table>
<thead>
<tr>
<th>Mining district</th>
<th>1719(1)</th>
<th>1797(2)</th>
<th>Distance from Mexico City in miles (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pachuca</td>
<td>1.07</td>
<td>1-</td>
<td>49</td>
</tr>
<tr>
<td>Guanajuato</td>
<td>3.5</td>
<td>3-</td>
<td>169</td>
</tr>
<tr>
<td>Zacatecas</td>
<td>6</td>
<td>4.5</td>
<td>325</td>
</tr>
<tr>
<td>San Luis Potosi</td>
<td>6</td>
<td>n.d.</td>
<td>221</td>
</tr>
<tr>
<td>Guadalajara</td>
<td>6</td>
<td>&quot;</td>
<td>n.d.</td>
</tr>
<tr>
<td>Sombrerete</td>
<td>7.5</td>
<td>&quot;</td>
<td>377</td>
</tr>
<tr>
<td>Durango</td>
<td>9</td>
<td>&quot;</td>
<td>442</td>
</tr>
<tr>
<td>Parral</td>
<td>12</td>
<td>&quot;</td>
<td>750(2)</td>
</tr>
<tr>
<td>Chihuahua (Santa Eulalia)</td>
<td>(13.5)</td>
<td>10.3</td>
<td>(870)(3)</td>
</tr>
</tbody>
</table>

Price of mercury in Mexico City

82.5       41.3

(1) Herrera 1978:117, except for Chihuahua calculated according to prices given by Bradley 1979:123,111.
(2) Bradley 1979:159.
(3) Our own estimate.

Local Indians provided the rudimentary technology necessary to exploit superficial silver deposits and this same wealth provided the capital necessary to expand the labour force, develop the mines and create refineries. On the other hand mining districts were in trouble when the mines became too difficult to exploit (through flooding or the fact that they became too deep) and the proportion of silver in the ore was too low to justify its extraction. Even when conditions of exploitation made silver mining still economically viable, the discovery of rich new mines in other districts made both workers and miners look for better opportunities there. The case of three major centres of production in colonial Spanish America (Zacatecas, Potosí and Santa Eulalia) illustrate these trends.

The ores obtained in the early years of mining in the districts of Zacatecas and Potosí were said to have had a
proportion of over 40% of pure silver. However exaggerated these claims might have been the settlement of miners and workers in these barren areas and their enormous demographic growth during the 16th century show the prosperity of mining in these districts. However, from the late 16th century, the maintenance or increase of the extraordinary production of these districts relied on technological developments and the presence of a substantial labour force and not on the richness of the ore which was, on the contrary, decreasing. Thus, in the 1640's the average silver content of the ore obtained in Zacatecas was below 0.1%, while mines which had recently been put into operation in Sombrerete were averaging 3.5 to 6% and mines discovered in the Parral district in the 1630's probably contained a similar proportion. As a consequence of this, miners, and especially workers, emigrated to those districts.

In the Potosi district the decrease of the silver content of the ore extracted was already noticeable in the 1570's when a mere 0.50 to 0.56% was reported and it continued to fall in the 17th century (0.093% in 1607) and in the 18th century (0.04 to 0.06). The crisis of production that these decreasing returns would have created was postponed by the introduction of the amalgamation process and the establishment of the repartimiento system on a massive scale, thus subsidising the miners with cheap labour. As for Santa Eulalia, the average silver

(vi) The economy of both districts relied almost entirely on mining. Zacatecas' population grew from just over 300 inhabitants in 1549 to 1,800 in 1572 and 4,500 in 1608. In Potosi the demographic growth was even sharper. Five months after the discovery of the mines the town had 3,000 inhabitants. By 1547 the population had increased to 14,000, over 100,000 by 1573 and over 150,000 by 1611. (21)
content of the ore obtained was, during the first years of exploitation (1706-10), 1.25 to 1.5% and decreased in the four following decades to 0.37 - 0.5%. In specific mines averages were far superior, reaching in 1714-25 1.5 to 4% and in one case, for a short period, 30%. The impact of these mines was therefore important but mainly limited to the north west Mexican region. Workers were recruited among the Indian tribes north of Durango and of the miners we have data for, the majority came from the decaying mining district of Cusihuiriachi, some 70 miles west of Santa Eulalia. (23)

a) Labour

Colonial silver miners employed both forced labour and free labour in their enterprises. We have dealt with the former type in Chapter 3 so here it is only necessary to evaluate the importance of black and Indian slavery and the encomienda and repartimiento systems for silver mining. In general, their importance decreased as the colonial period progressed. In 1597 the mines of central Mexico and Zacatecas had a labour force of 7,251 workers of which 4,610 (or 63.6%) were free Indians, 1,619 (or 22.3%) Indians under the repartimiento system and 1,022 (14.1%) black slaves. No comprehensive figures are available for 17th and 18th century Mexico but partial data indicate that free and semi-free labour became the almost exclusive form of labour employed in Mexican silver mining. This process is illustrated by the labour force of the district of Pachuca (see Table 9) where both slaves and repartimiento Indians tended to disappear during the 17th century while production, and therefore the total labour force, was increasing (24)
Table 9: Composition of the labour force in the mining district of Pachuca 16th and 17th centuries (*)

<table>
<thead>
<tr>
<th>Year</th>
<th>Black slaves</th>
<th>Repartimiento Indians</th>
<th>Free Indians</th>
<th>Spaniards</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1570's</td>
<td>800</td>
<td>1,108</td>
<td>27.7</td>
<td>1,592</td>
<td>39.8</td>
</tr>
<tr>
<td>1597</td>
<td>109</td>
<td>394</td>
<td>23.6</td>
<td>1,168</td>
<td>69.9</td>
</tr>
</tbody>
</table>


In South and Central American silver mining a similar process occurred. Black slaves and encomienda Indians, dominant at the beginning of the exploitation of silver in Chile (c. 1700) had, by 1750, been almost totally replaced by free mestizos or poor whites who were attracted to the mines by high wages and retained through debts. In 17th century Honduran silver mining, repartimiento Indians and black slaves comprised the major part of the (small) labour force. By the end of the 18th century, repartimiento Indians accounted for only 20-25% of the total labour force of the silver mines (some 1,000 workers) the rest being free workers. (25)

As for Peru, early silver miners employed encomienda and free labour. The latter was attracted by good wages and profits which they needed to pay their tributes. The implementation of the repartimiento system on a massive scale (4,500 permanent workers for Potosi alone) changed the balance in favour of forced labour but did not eliminate free labour altogether. Thus in 1603 in Potosi the mining labour force was composed of an equal number of repartimiento Indians and free workers (4,600 each) and two centuries later in c. 1790
the proportion of free workers had slightly increased to 52%, although the total labour force had almost halved to 4,959 workers. For the mining centres of Upper Peru, other than Potosí, data seem to indicate that little or no forced labour was employed by the end of the 17th century. Similarly in Lower Peru by the end of the 19th century repartimiento of Indians did not exist legally (except for the province of Puno), although the local bureaucrats informally forced Indians to work in the mines in small numbers, and pockets of black slaves remained in silver mining in some provinces (e.g. Huantajaya). (26)

Free labour can be considered from two different perspectives: its degree of specialisation and its form of payment. The level of specialisation of the labour force depended on the level of complexity that the extraction and refining of the ore required. Small mines with ore close to the surface simply used pickmen and carriers who transported the ore to the surface, while in mines with deep shafts and a large workforce these were aided or superseded by whim operators, experts in underground blasting, people in charge of classifying the ores and a series of supervisors, porters and administrative personnel. A complex division of labour also occurred in refining in cases where large quantities of ore were processed. This differentiation was obviously reflected in the wages and other conditions of work of the labour force. For instance pickmen obtained throughout Spanish America some 30 to 100% more than the ore carriers and, in the highly stratified work force of the Valenciana mine in Guanajuato, the ratio between the lowest and the highest paid job was 1:88. (27)
The study of the forms of remuneration of the free workers in silver mining is crucial to an understanding of the way in which one of the most dynamic (i.e. capitalised, profitable and technically advanced) sectors of the economy operated and the relations of production which it generated. These forms varied from a wage paid totally in cash to forms of payment which eliminated money payments altogether, replacing them by a share of the ore extracted (or 'partido') and forms of payment nominally expressed in money but in fact paid in credit against the miners' shop. In 18th century Mexico the typical form of remuneration was composed of up to 0.5 pesos a day (in cash or credit) plus food and a partido of the ore extracted after fulfilling the minimal daily quota or 'tequio'. It seems that in most cases the value represented by the partido was higher than the wages paid for the tequio due to the fact that after the tequio period mine workers worked on the richest parts of the mine. This system operated as a form of attracting labour power to the mines and also diminished the cost of labour. For instance in mines with difficulties of capital no wages were paid but substantial partidos of 1/3 to 1/2 of the total ore extracted were paid instead. Mine owners resented the high profits made by their workers by refining the partido ores themselves or selling it to independent refiners, and the fact that in the search for good ores for their partidos, workers did not hesitate to destroy the ore bearing pillars of the mine making it unsafe. From the 1760's big mine owners tried to eliminate or diminish the size of the partido and this met with violent opposition from the workers. By the beginning of the 19th century, however,
three large mines, representing c. 30% of total Mexican silver production, had succeeded in suppressing the partido.\(^{vii}\)\(^{(28)}\)

Remuneration to mine workers through partidos (or similar forms) was common in all the other main silver mining regions of the Spanish Indies in the 18th century. In the mining districts of Pasco and Huantajaya (Lower Peru) two different groups of labourers worked in the same enterprises, those paid in money (not necessarily cash), and those whose only remuneration was a part of the ore extracted. In Potosi a form of attracting and retaining free labourers was accepted by miners and the state alike from the middle of the 17th century. This was the 'kachjeo' or 'robbery' of minerals during the weekends which groups of free workers (and repartimiento Indians) were allowed to perform without sharing their profits with the mine owners. Finally, in Honduras, the incapacity of some miners to offer high wages or substantial money advances compelled them to offer their workers partido as well as wages. The only Spanish American region in which partidos and kachjeo seem to have been totally suppressed was northern Chile. There, during the first half of the 18th century, both practices were used by the miners to attract workers. However, during the second half of the 18th century, the population increase and legislation restricting the geographical mobility of the workers through debt peonage permitted the miners to retain their labour force.\(^{(30)}\)

\(^{vii}\) They were the Rayas mines (in the 1770's) and the Valenciana mine (in c. 1790), both in Guanajuato, and Quebradilla (in the 1800's) in Zacatecas. Quebradilla represented 39% of the production of Zacatecas and 7.4% of the total Mexican output. The Valenciana produced around 2/3 of Guanajuato production and the Rayas mine probably most of the rest. \(^{(29)}\)
A limitation on the geographic mobility of the free worker was the system of debt peonage which occurred in mining as well as agriculture. Its operation in mining is documented for many mining areas in Spanish America but its economic meaning seems to differ from agricultural debt peonage. Thus, although mine workers were everywhere compelled to pay off debts to the miners, the relatively high wages received by the labourers made it relatively easy to pay off the debt, and the latter operated more as an incentive to the worker to take employment in a mine than a restriction of his personal freedom. The importance of the system seems to derive from the fact that many miners were only able to pay a fraction of the wages required to attract and retain workers and, for them, obtaining commodities on credit from the merchants represented an alternative along with the partidos. (viii)

To put silver mining labour within the context of the colonial economy as a whole we have assembled, in Table 10, estimates of the labour force employed in mining and the total population of the areas in which they were located in the late 18th century. The obvious features to note are the limited importance of the silver mining labour force as compared with the total population of their regions (below 1% in all cases) and the low proportion of forced labour. It does not

(viii) Debt peonage in this sense occurred in Zacatecas, Parral and Santa Eulalia at different stages, and Huantajaya, Puno, Pasco and Potosi (Peru) in the 18th century. In 18th century Chile it seems that debt peonage seriously limited the freedom of the mine workers, linking them to specific miners for long periods of time. (31)
necessarily follow from these observations that labour was plentiful for the needs of silver mining or that a proletariat had emerged as the dominant form of labour in that sector.

To conclude this we would need further studies of the local
economies in the mining areas, the demographic trends, the relations of production dominant in the surrounding countryside, etc. On the contrary, the evidence tends to suggest the opposite, namely the scarcity of labour in the silver mines and the predominance of pre-capitalist forms of production in that sector. Thus, the high wages and partidos paid in silver mining show that in the mining camps (usually removed from the centres of Indian population and agricultural production) labour was scarce and that the workers took advantage of this situation. The persistence of partidos and kachjeo, forms of debt peonage, the forced recruitment of vagabonds (outside the repartimiento system and not shown in the table) and the strong link of the workers with the peasant economy of their regions (e.g. the decrease in the size of the labour force during harvest time) suggest the predominance of pre-capitalist forms of production in silver mining as late as the early 19th century. (ix)

b) Technologies

Early silver mining in South America, excepting the case of Potosí, was nothing if not primitive. The surface part of the silver veins was quickly removed and open cast mining usually followed. In other cases the silver vein was followed

(ix) In Mexico the usual silver mining wage of 4 reales per day and partido compares favourably with the wages of hacienda peons (2 reales a day). In northern Chile agricultural wages were 5 to 6 pesos per month or about half the mining wages (7 to 8 pesos per month). In the second half of the 18th century strong links between the mining labour force and the peasant economy seem to have existed in central Mexico and Potosí and, by inference, in Lower Peru, where, in the early 20th century, copper mining workers depended to a large extent on work in the peasant communities to obtain their means of subsistence. (32)
underground by tunnelling without planning to allow for more rational transport of the ore to the surface or drainage. At this stage the ore was removed by crow bars and picks and transported by human carriers to the surface. The main technical problem faced by miners occurred when they reached the water table with the consequent flooding of the mine and the need to drain it. To solve these problems several techniques were adopted or developed during the 17th and 18th centuries. Firstly, the construction of deep adits and shafts which permitted an effective drainage of the mine and sometimes an easier form of extraction of the ore. Secondly, the use of cartridge blasting to facilitate the construction of these (at least from the 1720's) and, thirdly, the use of whims, manual pumps and, in the case of Pasco in the early 19th century, steam powered pumps. (33)

The technical progress of silver mining proper (as opposed to silver refining) can be gauged by looking at Table 11 which shows data on major shafts and adits in colonial Spanish America. It should be noted that the scale of the engineering works developed as the period progressed and that major adits and shafts were concentrated in the districts or mines of highest production (La Valenciana, Potosi, Pasco etc.). Adits and shafts permitted a rapid drainage of the mines and their successful completion brought about substantial production increases. Thus, the completion of the first part of the adit of Santa Rosa in Pasco in 1786 produced an increase in the value of the annual average silver production from 646,000 pesos in 1771-85 to 1,705,000 in the period 1786-1800. Similarly, the Veta Vizcaina increased its production from about 100,000 pesos
Table 11: Major shafts and adits in colonial Spanish American mining (in yards)

<table>
<thead>
<tr>
<th>District or mine</th>
<th>Shafts</th>
<th>Adits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Luis Parral</td>
<td>130</td>
<td>250</td>
<td>(by the 1650's)</td>
</tr>
<tr>
<td>Vizcaína (Real del Monte)</td>
<td>143</td>
<td>(1720)</td>
<td></td>
</tr>
<tr>
<td>Bolanos</td>
<td>276</td>
<td>(1790)</td>
<td>2,881 (1791)</td>
</tr>
<tr>
<td>Zacatecas</td>
<td>112</td>
<td>(by 1679)</td>
<td></td>
</tr>
<tr>
<td>Veta Grande</td>
<td>360</td>
<td>(by 1797)</td>
<td></td>
</tr>
<tr>
<td>Valenciana</td>
<td>635</td>
<td>(by 1810)</td>
<td>estimated cost 1,000,000 pesos</td>
</tr>
<tr>
<td>Tehuilotepa</td>
<td>120</td>
<td>477</td>
<td>(by 1793)</td>
</tr>
<tr>
<td>Santa Eulalia</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Peru

<table>
<thead>
<tr>
<th>District or mine</th>
<th>Shafts</th>
<th>Adits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potosí</td>
<td>370</td>
<td>400</td>
<td>(1585)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,200</td>
<td>(1889-1810)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>cost 560,000 pesos</td>
</tr>
<tr>
<td>Pasco</td>
<td>100</td>
<td>1,650</td>
<td>(late 18th century)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>well over 116,000 pesos</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>130,000 pesos</td>
</tr>
<tr>
<td>Huérgayoc</td>
<td>c.500</td>
<td>(1790-98)</td>
<td></td>
</tr>
<tr>
<td>Huantaquia</td>
<td>370</td>
<td>(1765)</td>
<td></td>
</tr>
<tr>
<td>Honduras</td>
<td>100</td>
<td>(late 18th century)</td>
<td></td>
</tr>
<tr>
<td>Yuscarán</td>
<td>100</td>
<td></td>
<td>(late 18th century)</td>
</tr>
</tbody>
</table>

* Source: Brading 1971: 132-5 and other sources indicated in the notes below.

(2) Hadley 1979: 181.

per annum in the twenty years before the adit was completed, to around 800,000 per annum in the two decades commencing in
1762. And it seems that Bolanos production doubled from 0.48 million pesos per annum in 1771-5 to 1.1 million pesos per annum in 1776-80, due to the construction of a shaft 250 yards deep. (34)

During the colonial period Spanish American silver was reduced by either smelting or amalgamation. Before the 1550's in Mexico and the 1570's in Peru all ores were smelted since amalgamation was unknown, after those dates the choice existed but was determined by the quality of the ore and the cost and availability of the raw materials. Before smelting the ore was crushed in water or animal powered stamp mills or by hand in the more primitive refining works. To the ground ore, lead or lead oxide was added and then the mixture was smelted in a furnace and the slag raked off. The silver contained in the resulting lead-silver alloy was finally separated by cupellation. For the amalgamation process the ore was finely ground and taken to a large stone paved yard. Water, salt and mercury were added and the mixture trodden by men or mules and then left in piles until the silver was thought to be totally amalgamated with the mercury (two to eight or more weeks). The mixture was then washed to eliminate the slime and the silver - mercury amalgam was pressed into bars and put into a small furnace where the mercury evaporated (to be recovered later by condensation) leaving a bar of almost pure silver. (x) (35)

Perhaps the single most important technological advance

(x) This description is a simplification of the many processes involved in each method and does not consider the local variations in the application of these methods. For a comprehensive account of these see Bargallo 1955:91-101, 107-200, 240-51, 343-48 passim.
in silver mining in colonial Spanish America was the application of the amalgamation process from the 1550's and its improvement in several respects thereafter. Its main advantage was that it permitted the treatment of low grade ores (0.125% of silver content or less) which tended to predominate during the 17th and 18th centuries. Other advantages of the method were the capacity to extract a higher proportion of silver from the ore and substantial savings in the use of fuel. On the negative side the use of mercury, which was a scarce and expensive commodity at times, and the need for additional quantities of power (human, animal or hydraulic) to grind the ore to a fine dust decreased the economic viability of the method.

At this point it is necessary to specify the ways and proportions in which mercury was consumed in the amalgamation process. We have already mentioned that mercury used in amalgamation was recovered through distillation and filtering. However, inefficiency in the filtering process and chemical reactions between mercury and elements other than silver produced losses of some 20 to 30% of the mercury used. As mercury was used in proportion to the silver expected to be obtained and not the amount of ore treated the consumption of mercury was calculated in relation to the silver produced. On average 100 marks of silver were produced with every quintal of mercury (1 quintal = 200 marks), although in different camps and periods the proportion varied between 75 and 130 marks per quintal. Since silver was traded at between 6 to 8 pesos a mark and mercury was sold at between 40 to 100 pesos we can estimate that mercury constituted c. 10% of the value of the silver thus traded. The percentage of the cost
absorbed by mercury, on the other hand, depended on the prices paid for mercury, labour, transport etc. In Table 12 we show costs of amalgamation in Real del Monte (Mexico) in 1801 for two different qualities of ore. The costs for the amalgamation of both types of ore remained virtually the same except for the cost of mercury and the purchase price of the ore itself, which increased proportionately to the silver to be obtained. The crucial point to be made, however, is the way in which mercury prices affected silver production during the 18th century. Prices included in the table are those of Mexico City and do not include the cost of transport to the mining centres. It should be noted that these changes in the price of mercury did not greatly affect the refining of ores which had a silver content of 0.15 or more \(^{\text{x1}}\). For the entrepreneurs producing or refining ores of c. 0.06% however, the price of mercury was crucial, and could make the difference between losses and profits. This threshold of profitability was not the same everywhere in the Indies since conditions like the price of labour, transport etc., varied from camp to camp. For instance in Potosi ores with a silver content of 0.03 or less were refined despite the high prices of mercury. In this case the massive influx of cheap labour through the repartimiento system made the exploitation of low grade ores viable. \(^{37}\)

The reasons for special consideration of the case of mercury, which was only one of the raw materials needed for

\(^{\text{x1}}\) If the ore was very rich in silver, the increase in the amount of mercury used per quintal of ore made it more economical to reduce it by smelting. Lang asserts that in the late 17th century, with a price of mercury of 82 pesos per quintal, if the silver content of the ore was higher than 0.5%, then smelting was more economical. \(^{36}\)
silver production, are three fold. Firstly, it made a considerable impact on silver production by permitting the reduction of low grade silver ores. Secondly its supply to the mining centres was difficult since the level of its production costs and the possibilities of its distribution in the Indies varied widely during the colonial period. And thirdly,
as a result of this, mercury prices fluctuated widely permitting an expansion or contraction of silver production.

The effects of the introduction of the amalgamation method in silver production can be gauged by the case of Potosi. There the beginnings of the treatment of ores with mercury in the 1570's permitted a three fold increase in silver production in twenty years, reversing the trend of declining production due to the decrease of the silver content of the ores extracted (see Appendix 5). Thus production leapt from little over 2 million pesos per annum in the 1560's to an average of over 6.5 million per annum in the 1580's. No figures are available for similar periods in other Spanish American mining centres. However, comparisons between silver production and mercury availability in periods for which data is available show a positive correlation between the two variables. An extreme case that confirms this point is the crisis of mercury supply in the Indies around 1800. From 1797 to 1802 the supply of European mercury ceased altogether, due to the war with England, and mining camps had to rely on their own quicksilver reserves, the scarce local mercury production or they had to smelt their ores. Table 13 shows the effects of this crisis at its worst in the first two years of the 19th century when mercury stocks had virtually run out. It should be noted that Potosi's production was the most affected by the crisis since there was not any local mercury production and the low silver content of most ores made it impossible to refine them by smelting. For Peru, on the contrary, the normal supply of quicksilver was only halved during 1801-2, and the silver content of the ore of at least some of its mining centres was far higher than the average in Potosi
Table 13: Silver production and mercury supply during the early 19th century crisis (in pesos and quintales)

<table>
<thead>
<tr>
<th></th>
<th>1791-800 (annual average)</th>
<th>1801-2 (annual average)</th>
<th>decrease (in %)</th>
<th>1791-800 (annual average in quintales)</th>
<th>1801-2 (annual average in quintales)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potosi</td>
<td>3,475,949</td>
<td>2,360,764</td>
<td>32.1</td>
<td>2,310</td>
<td>0</td>
</tr>
<tr>
<td>Mexico</td>
<td>22,162,910</td>
<td>17,683,130</td>
<td>20.2</td>
<td>16,000?</td>
<td>750?</td>
</tr>
<tr>
<td>Lower Peru</td>
<td>4,363,147</td>
<td>4,186,839</td>
<td>4.0</td>
<td>5,016</td>
<td>2,380</td>
</tr>
</tbody>
</table>


(2) Silver production in Humboldt 1966:387, supply for the 1790's corresponds to the late 1780's. Local production in the period 1798-1802 did not exceed 1,500 quintales. The colony seems to have received no mercury during 1801-2. (Heredia 1978:85-6; Howe 1949:259-61).

(3) Silver production in Fisher 1977: Appendix. We have not considered the production of the district of Puno which is incomplete. Mercury supply has been calculated by adding imports from Spain and Huancavelica production (Fisher 1977:157, 165, 170).

thus permitting the use of smelting. The situation of Mexico was between these two extremes. With an almost insignificant production of mercury locally and therefore a minimal supply a substantial part of its ores were rich enough to permit economic production by smelting. (xii) (38)

(xii) Thus it was estimated in the early 19th century that under normal conditions some 15% to 20% of the silver produced was smelted. In the Guanajuato district for instance 16.8% (or an annual average of 829,000 pesos) of the total production (4,938,500 pesos per annum) was smelted in the decade 1791-1800. During 1801-2, although production fell to an average of 3,560,000 pesos per annum, smelted silver increased to 1,259,000 pesos per annum or 35.4% of the total production. (39)
Spanish American silver mining was supplied mainly by the mercury mines of Huancavelica (Peru), Almadén (Spain) and Idria (Yugoslavia), although small quantities were supplied by China through the Philippines and a few Spanish American mercury mines of little importance (see below). The supply of mercury to the Indies is presented in Table 14. For the 16th and 17th centuries the data included is almost complete and shows a clear dependence of Spanish American silver mining on Huancavelica, which supplied 63% of all the mercury used in the Indies. Huancavelica supplied mainly Peruvian and Upper Peruvian mines but occasionally its mercury was exported to Mexico, which received 44,000 quintales of mercury from that source during the 16th and 17th centuries. European mercury (largely Almaden's) supplied mainly Mexico, although Peru obtained important amounts from that source during the 17th century. Data for the 18th century and early 19th century is incomplete but at least shows the main trends in the supply of mercury to the Indies. These trends were a) the decrease of production of mercury in the Indies, b) a sharp increase in the supply of European mercury, and c) a general increase in the total supply of mercury to the Indies.

The first trend needs no further examination since it is obvious from the data. The other two are confirmed by data on the production of mercury in Almaden which was sent almost entirely to the Indies. Estimates by Brading and Cross suggest an average production of over 5,000 quintales per annum during the first half of the 18th century and an average of 12 to 15,000 quintales per annum during the latter part of the century. Data for the early 19th century indicate that mercury production reached an incredible annual average of
Table 14: Mercury availability in colonial Spanish America (in quintales) *

<table>
<thead>
<tr>
<th>European Mercury</th>
<th>Mexico</th>
<th>Honduras</th>
<th>Colombia</th>
<th>Peru</th>
<th>Huancavelica</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1551-60</td>
<td>990</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>890</td>
<td>890</td>
</tr>
<tr>
<td>1561-70</td>
<td>8,760</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8,760</td>
<td>8,760</td>
</tr>
<tr>
<td>1571-80</td>
<td>22,497</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>33,974</td>
<td>46,462</td>
</tr>
<tr>
<td>1581-90</td>
<td>1,981</td>
<td>499</td>
<td>-</td>
<td>-</td>
<td>33,974</td>
<td>94,470**</td>
</tr>
<tr>
<td>1591-600</td>
<td>28,670</td>
<td>210</td>
<td>-</td>
<td>-</td>
<td>33,974</td>
<td>94,887**</td>
</tr>
<tr>
<td>1601-10</td>
<td>32,246</td>
<td>-</td>
<td>-</td>
<td>78</td>
<td>3,031</td>
<td>35,355</td>
</tr>
<tr>
<td>1611-20</td>
<td>42,360</td>
<td>940</td>
<td>1,100</td>
<td>1,100</td>
<td>61,897</td>
<td>106,676</td>
</tr>
<tr>
<td>1621-30</td>
<td>46,236</td>
<td>1,081</td>
<td>19,512</td>
<td>-</td>
<td>39,857</td>
<td>108,388</td>
</tr>
<tr>
<td>1631-40</td>
<td>20,274</td>
<td>-</td>
<td>800</td>
<td>37,767</td>
<td>48,717</td>
<td>95,818</td>
</tr>
<tr>
<td>1641-50</td>
<td>25,838</td>
<td>n.d.</td>
<td>n.d.</td>
<td>14,779</td>
<td>33,202</td>
<td>68,071</td>
</tr>
<tr>
<td>1651-60</td>
<td>21,362</td>
<td>-</td>
<td>-</td>
<td>4,658</td>
<td>67,261</td>
<td>93,281</td>
</tr>
<tr>
<td>1661-70</td>
<td>20,400</td>
<td>1,100</td>
<td>867</td>
<td>58,422</td>
<td>68,951</td>
<td>108,691</td>
</tr>
<tr>
<td>1671-80</td>
<td>22,375</td>
<td>706</td>
<td>200</td>
<td>58,422</td>
<td>68,951</td>
<td>108,691</td>
</tr>
<tr>
<td>1681-90</td>
<td>14,919</td>
<td>-</td>
<td>606</td>
<td>29,128</td>
<td>44,847</td>
<td>70,090</td>
</tr>
<tr>
<td>1691-700</td>
<td>19,136</td>
<td>200</td>
<td>-</td>
<td>51,554</td>
<td>70,090</td>
<td>70,090</td>
</tr>
<tr>
<td>1701-10</td>
<td>29,154</td>
<td>(30,590)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1711-20</td>
<td>27,273</td>
<td>(34,402)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1721-30</td>
<td>36,859</td>
<td>(33,202)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1731-40</td>
<td>50,071</td>
<td>(34,729)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1741-50</td>
<td>53,743</td>
<td>(54,521)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1751-60</td>
<td>46,734</td>
<td>(46,734)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1761-70</td>
<td>(69,350)</td>
<td></td>
<td>(33,202)</td>
<td>59,081</td>
<td>98,352</td>
<td>157,432</td>
</tr>
<tr>
<td>1771-80</td>
<td>(96,000)</td>
<td></td>
<td>(34,729)</td>
<td>59,081</td>
<td>153,729</td>
<td>256,729</td>
</tr>
<tr>
<td>1781-90</td>
<td></td>
<td>22,000+</td>
<td>45,022</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1791-800</td>
<td></td>
<td>41,015</td>
<td>26,917</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1801-10</td>
<td>85,093+</td>
<td>43,200</td>
<td>59,081</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1811-20</td>
<td></td>
<td>27,392</td>
<td>26,570</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Blank spaces mean no data, and figures in brackets are estimates.

Data for the 16th and 17th centuries come from Chaunu 1959, VIII, 2:1958-71, except for the supply to Mexico between 1631-50, which comes from Lang 1977:353. For Mexico in the 18th century, data comes from Lang 1977:353 (1701-10), Heredia 1978:235-6 (1711-50), Humboldt 1966:384 (1761-80) and Brading 1971:142 (1801-10). Figures for 1761-80 are estimated and figures for 1801-10 correspond to 1802-3 only. As for Peru data comes from Fisher 1977:54, 165 and Buechler 1981:329. Figures for 1771-1800 correspond to Peru and Upper Peru, the rest to Lower Peru alone. Data for years 1778-80 and 1816 are missing. Huancavelica's production figures and estimates come from Whittaker 1941:18 (1701-9), Humboldt 1966:396 (1713-48), Bargallo 1955:265 (1748-52) and Fisher 1977:157 (1759-1810). Extrapolations and the assumption of an equal number of quintales per year in every period have been used to reduce data to its present format.

** For reasons of space we have eliminated Hispaniola which received 30 and 250 quintales during 1581-90 and 1590-1600 respectively. These amounts are however included in the total.
Table 15: Mercury prices in the main colonial producing areas (in pesos per quintal)

<table>
<thead>
<tr>
<th></th>
<th>Mexico</th>
<th></th>
<th>Lower Peru</th>
<th></th>
<th>Potosi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Almaden's mercury</td>
<td>Peruvian mercury</td>
<td>All mercury</td>
<td></td>
<td>All mercury</td>
</tr>
<tr>
<td>C16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1560</td>
<td>215</td>
<td></td>
<td>1577</td>
<td>122</td>
<td>1577</td>
</tr>
<tr>
<td>late 1560's</td>
<td>310</td>
<td>180</td>
<td></td>
<td>1580</td>
<td>119</td>
</tr>
<tr>
<td>1572-91</td>
<td>180</td>
<td>165</td>
<td></td>
<td>1586</td>
<td>112</td>
</tr>
<tr>
<td>1597</td>
<td>c.165</td>
<td>110</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1602</td>
<td>95</td>
<td></td>
<td>1749</td>
<td>79</td>
<td>1749</td>
</tr>
<tr>
<td>1608-17</td>
<td>60</td>
<td></td>
<td>1782-95</td>
<td>75</td>
<td>17??-79</td>
</tr>
<tr>
<td>1617-70</td>
<td>82</td>
<td></td>
<td>1795-800</td>
<td>73</td>
<td>1799-83</td>
</tr>
<tr>
<td>1670</td>
<td>1683</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1680's</td>
<td>90-100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1709-67</td>
<td>82.5</td>
<td>105</td>
<td>1749</td>
<td>79</td>
<td>1749</td>
</tr>
<tr>
<td>1767-76</td>
<td>62</td>
<td></td>
<td>1782-95</td>
<td>75</td>
<td>17??-79</td>
</tr>
<tr>
<td>1776-18??</td>
<td>41</td>
<td></td>
<td>1795-800</td>
<td>73</td>
<td>1799-83</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


22,360 quintales.

The existence of vast stocks of mercury in Spain (e.g. 120,000 quintales in 1802) did not, however, mean a regular supply for the Indies since, on various occasions (1759-61, 1780-3, 1798-1801, 1806-8), traffic between Spain and the Indies was virtually stopped by wars between Spain and other European powers. Furthermore, even the increasing production of Almaden was not always enough to supply the Indies and in 1785 a contract to supply c. 2,000 quintales per annum from Idria was signed by the Spanish crown. (40)

Prices charged to the miners for mercury by means of the crown's monopoly varied according to costs of production,
transport and availability. (xiii) In Table 15 we have assembled sale prices for Mexico, Potosi and Peru. After a period of relatively high prices during the 16th and early 17th century, more or less constant prices were established in Mexico and Peru (82 and c. 75 pesos). In Mexico these mercury prices were maintained until 1767 and 1776 when the successive falls in price halved the price of mercury and increased, or helped to increase, silver production significantly. Thus during the nine years before the first price fall (1759-67), silver production in Mexico was 11.3 million pesos, and it increased to 13.0 (a 15.5% increase) during the 9 years when the price was 62 pesos per quintal (1768-76) and reached 17.4 million pesos during 1777-85, the first nine years when mercury was sold at only 41 pesos per quintal. (42)

c) Capital, taxes and profits

The operation of most silver mines during the 16th century and in peripheral areas up to the end of the colonial period, required little capital. This was provided by the high profits of the mines themselves or small loans from local merchants to finance the cost of labour, tools and foodstuffs. However, as superficial wealth was exhausted and the average silver content of the ores diminished,

(xiii) We have dealt with transport above and we will refer to the cost of production when dealing with mercury production later on. As for mercury availability the crown was reluctant to lower its monopoly prices in cases of high supply. In cases of shortage of supply the crown sometimes used the price to equate supply and demand but in most cases it seems that prices were maintained. A special case was the sale of Peruvian and Idria's quicksilver in Mexico in times of scarcity which, because it cost the crown more, was sold at higher prices. This in fact acted as a regulator of supply and demand. (41)
technical requirements (deep shafts, machinery, mercury etc.) became increasingly needed and mines were either abandoned or subjected to heavy capital investment.

A unique example of rapid investment in silver mining brought about by technical needs in the 16th century is provided by the Potosi mining district. Up until c. 1570 almost all the silver produced in Potosi was smelted by encomienda Indians or Indian entrepreneurs who rented the mines from the Spaniards. They smelted the silver employing prehispanic techniques, which made use of natural elements (grass, animal dung, portable clay ovens, the wind) and labour power and needed little capital investment. The main shortcoming of the method was that it was only profitable when using ores of high silver content (40 to 10%). Therefore the ores extracted from the mines which failed to reach this degree of richness were discarded as tailings (desmontes). The progressive exhaustion of the rich ores had, however, been producing a crisis of production since c. 1565 and profits and labour supply were decreasing. The introduction of the amalgamation process and the repartimiento system on a massive scale in the 1570's reversed this trend. The enormous increase of silver output in the latter part of the 1570's (see Appendix 5) was achieved by large investments in processing plants. These investments have been estimated by Bakewell at 3,276,780 pesos for the period 1571-76 or 42.2% of the gross income of the miners during the same period. The high rate of investment was probably due to the existence of vast quantities of ores already mined (the tailings) and the abundance of repartimiento Indians to operate the mills. (43)

No other mining district seems to have had a similar
investment in such a short time during the 16th and 17th centuries. During the 18th century however the scope of the investments grew enormously due to the difficulties of extracting the ore and the large scale of production. For instance the miners of the 'Veta Vizcaina' mine (Real del Monte) invested 1,428,906 pesos in the construction of shafts, drainage, tunnels and a refining mill between 1741 and 1758, while the 'Valenciana' mine owners spent over two million pesos between 1760 and 1810 on building 4 shafts. Data for other mining camps in Mexico and Peru permit us to assert that investment to the order of 100,000 to one million pesos in a few years in one mining enterprise alone was not uncommon towards the end of the colonial period.

Where did the necessary capital to invest in mining come from? No definite answer can be given at this stage of the research on silver mining in colonial Spanish America. More detailed studies of mining costs, investments, profits, etc., are necessary to elaborate an accurate account of mining finances. However, with the miscellaneous evidence known to us it can be deduced that the main sources of capital investment in silver mining were, 1) mining profits themselves, 2) the traditional money lenders and investors (the church, widows, professionals etc.), 3) the state, 4) merchant capital credited to miners or invested directly in mining.

The reinvestment of mining profits is most difficult to determine since, in the few accounts of mining enterprises available, investments and operational costs are not distinguished. It is clear however that to continue operating mines successfully over long periods money had to be invested in building shafts and adits or expanding the refining capacity.
of the enterprise. It seems that in most cases non-mining profits or rents provided part of the necessary capital to invest in the mines. However, in at least some cases, mining profits provided all the capital necessary for the continuing or expanding operations of mines. (xiv)

Among the traditional sources of finance in colonial Spanish America, the church's capital, so conspicuous in agricultural investments, does not appear to have been important in financing mining enterprises. Although the church loaned the owner of the Rayas mine in Guanajuato 80,000 pesos in 1798 to renovate the mine it must be emphasised that the miner secured the loan by mortgaging a string of haciendas worth five times the loan. As only the mining elite had enough land to raise substantial loans which were properly secured it seems that very little church money went directly into mining. (xv) Moreover as church money was only available for loans in small quantities at any one time this made it impossible for miners to borrow from it for large investments. Other money lenders in Spanish America included widows, professionals and, especially, merchants. The scope of the activities of the latter compel us to deal with them separately. These social groups also participated, along with proper miners, as investors in companies formed to exploit certain mines. (47)

The Spanish crown was reluctant to make any investment in silver mining either directly or indirectly. However, in a

(xiv) This seems to be the case with the Valenciana mine in Guanajuato and the mines of Pedro Rojas in Huelgayoc (Peru) in the 18th century, and several mining ventures of López de Quiroga in 17th century Upper Peru. (45)

(xv) Church institutions, as well as other money lenders, deposited money at around 5% annual interest with merchants who, in turn, lent it at a higher rate to other merchants, miners or agriculturalists in need of cash. (46)
few cases, and especially after c. 1780, some capital contributions were made through the mining banks operated by the crown or the mining guilds on behalf of the crown. They consisted of loans to (mainly silver) miners with little or no interest (see Table 16) and in Potosi and Pasco the construction of large adits to serve silver mines at costs of over 500,000 and 100,000 pesos respectively. These activities of the crown were part of a package of reforms started in the 1770's. These reforms were mainly financed by the crown and included the creation of mining guilds, technical aid, facilities to sell silver and buy raw materials, tax exemptions and the sale of raw materials at cost price to miners investing in risky projects etc., in order to increase mining (mainly silver) production.

Table 16: Loans made by the crown to miners in the last decades of the colonial period (in pesos).

<table>
<thead>
<tr>
<th>Period</th>
<th>Number of miners</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Mexico 1784-87</td>
<td>21</td>
<td>1,209,903</td>
</tr>
<tr>
<td>(2) Peru 1787-1821</td>
<td>7</td>
<td>160,593</td>
</tr>
<tr>
<td>(3) Potosi 1780-1805</td>
<td>24</td>
<td>1,260,080</td>
</tr>
<tr>
<td>(4) Chile 1791-1818</td>
<td>30</td>
<td>63,300</td>
</tr>
<tr>
<td>(5) Honduras 1785? -1887</td>
<td>1</td>
<td>26,000</td>
</tr>
</tbody>
</table>

(1) Howe 1949:128-31, 384-5. After 1787 loans were discontinued, but before 1813 another 200,000 seem to have been lent.


By far the most conspicuous investment in silver mining was that of the merchants. Miners in need of money while developing a mine, or the poor miner needing to cover operating costs before obtaining any return, were financially backed by merchants in several ways. Firstly, merchants were able to purchase (with money or goods) the product of the miners/refiners in the form of ore, or taxed or untaxed silver bars. Secondly, they were able to provide on credit the tools, raw materials, foodstuffs, clothes and, sometimes, cash necessary to operate the mines and pay the workers. Thirdly, wealthy merchants provided the necessary capital to develop potentially rich mines as capitalist partners in mining societies. And, finally, as a result of miners'/refiners' bankruptcies and the consequent foreclosure or the prospects of higher profits many a merchant turned into miner or refiner.

So far we have dealt only with silver production leaving aside problems of the circulation of silver bars and its minting. A reference to these is now necessary to understand the capacity for capital accumulation of the miners and refiners and the nature of the intervention of merchants in the process.

During the 18th century, 8.5 pesos were minted from a mark (i.e. 230 grams) of silver of a fineness or grade of 0.916 (11/12). The royal mints, however, paid only 8.007 pesos per mark of that grade to take into account royal duties.

(xvi) That was the practice in Lima, Potosí and Santiago de Chile from c. 1730 until the end of the colonial period and in Mexico City from 1752 to 1772. In the latter case, however, 8.66 pesos were cut from each silver mark and in 1772 and 1786 silver coins were debased to a grade of 0.902 and 0.895. In the 16th and 17th centuries the fineness of silver coins was above 11/12 and prices paid by the royal mint were slightly higher. (48)
(0.25 pesos) and minting costs. Royal mints were not always in the right financial situation to buy silver as it arrived at the mint house, and long delays made it necessary for the miners/refiners to sell their silver at a discount to silver merchants or banks. Equally, the sometimes long journey to the mint house made it more convenient for the miners to sell their silver in situ at a higher discount. The need for some miners to obtain raw materials and other items on credit made them even more vulnerable at the point of selling their silver and an extra 2% discount or more was applied on top of the normal discount (see Table 17).

In Table 17 we have assembled data on silver prices paid in different camps in the Indies and, despite the paucity of the data, a few conclusions can be drawn from it. Firstly, discount rates were higher in the places that were further away from the mints (i.e. Durango, Huantajaya) probably due to the higher cost of transport and the time needed to recover the capital. Secondly, at least in Mexico, there was a tendency for silver prices to go up during the last third of the 18th century. Finally, and as might be expected, discount rates applied by the banks of the mining guilds or state agencies were very small, permitting the miners to obtain a maximum price. (xvii)

Sales on credit to miners against a future payment in silver ore or bars appeared with the beginning of silver mining

(xvii) These facilities were available to the miners only in the latter part of the colonial period. These agencies were opened in 1752 in Potosi, in the 1790's in Mexico, in 1812 in Chile and for a few years in the 1790's in Peru.
Table 17: Prices paid for a mark of silver in several mining camps in colonial Spanish America (in reales)*

<table>
<thead>
<tr>
<th>Mexico (1)</th>
<th>Open market (Avios)</th>
<th>Smelted</th>
<th>Amalgamated</th>
<th>Smelted</th>
<th>Amalgamated</th>
<th>Gross profit (%)</th>
<th>As payment of goods on credit (Avios)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zacatecas  c. 1600</td>
<td>50.7</td>
<td>57</td>
<td>54</td>
<td>56</td>
<td>56</td>
<td>12.3</td>
<td>8.5</td>
</tr>
<tr>
<td>1664</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1762</td>
<td>52</td>
<td>54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1790</td>
<td>56</td>
<td>57.5</td>
<td>54</td>
<td>56</td>
<td>54</td>
<td></td>
<td>4.2</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>7.8</td>
</tr>
<tr>
<td>Guanajuato</td>
<td>1742</td>
<td>52</td>
<td>56</td>
<td>58</td>
<td>58</td>
<td>9.5</td>
<td></td>
</tr>
<tr>
<td>1786</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1790's</td>
<td></td>
<td>59</td>
<td></td>
<td>58</td>
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<td>3.9</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>Durango</td>
<td>pre 1777</td>
<td>52</td>
<td>54</td>
<td>54</td>
<td></td>
<td>15.3</td>
<td></td>
</tr>
<tr>
<td>1777</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1790's</td>
<td></td>
<td>56</td>
<td></td>
<td></td>
<td></td>
<td>12.0</td>
<td></td>
</tr>
</tbody>
</table>

South America

Potosi (2) 1650's late 1740's early 1760's 1779-1800

<table>
<thead>
<tr>
<th></th>
<th>50</th>
<th>58.75</th>
<th>60**</th>
<th>60**</th>
</tr>
</thead>
</table>

Huantajaya(3) mid 1760's

<table>
<thead>
<tr>
<th></th>
<th>48°</th>
<th>15.7</th>
</tr>
</thead>
</table>

Huelgayoc & other Peruvian camps

(4) Early 1790's c.56**

Bussaco(Chile)

(5) 1812 56**

(*) All prices are before paying the royal tax of c. 11£ (in the case of 17th century Potosi c. 21£). Gross profits have been calculated considering a price at the mint of 65 reales for smelted silver and 69 reales for amalgamated silver, except for the case of Potosi for which we reproduce Bakewell's estimate. Silver included in the category 'amalgamated' is not necessarily thus processed but of a similar fineness (i.e. above 11/12). ** Price paid by banks of the mining guilds or other state agencies.

(3) Villalobos 1979:175.
(5) Mendez 1979:144.

and remained a profitable activity at least for the rest of the colonial period. Merchants were attracted to the mining camps
by the presence of a substantial demand for expensive items (clothes, alcohol, mercury etc..) and the camps, although not always plentifully supplied with money, had commodities (silver bars or ore) which were easily converted into money. Local merchants (or aviadores), sometimes themselves miners, did not control the whole process of transforming the silver into coins but relied on merchants in the mint cities. These merchants minted the silver themselves under license from the crown in the royal mint house, or transported and stored the silver until it was possible to mint it. Thus a complex network of dependencies developed between the big merchants who operated in the mint cities, the local merchant, the miner and, in some cases, the mine workers. Commodities and cash were supplied by the big merchants to the miners through the local aviador. The miner returned the loan, again through the local aviador, in silver, at a discount previously arranged, or in ore if the aviador was also a refiner. The last link in this dependency chain was the worker who was usually paid partly in ore (partidos), clothes, food-stuffs and other items. He usually sold his partido to merchant-refiners or to the mine owner through whom silver reached the mint cities' merchants.

The model presented above and expressed in graphic terms in Figure 2 is necessarily a simplification of the reality. At any one stage the credit system which linked mine owners, workers and merchants could be broken by sale/purchases in cash or one or more links in the chain could be avoided or created.
Thus in some camps and periods mine workers were paid exclusively in cash, certain miners had direct credit with the big merchants or sold their silver directly to agencies of the state avoiding the merchants' credit system. Regions with enough local capital created their own credit system connected with the mint cities by cash purchases or credit, etc. A special case within the merchants' credit network was presented by direct purchase of silver in cash. This was generally done in the mining camps by agents of the big dealers of the mint cities. It seems that silver dealers became increasingly involved in lending money and supplying commodities on credit to the miners/refiners and were paid in silver, thus integrating within the same enterprise the role of aviadores and silver dealers. (49)
The extent of direct investment of merchants in mining as partners of miners or as miners in their own right in the 16th and 17th centuries is unfortunately unknown.\textsuperscript{xviii} For 18th century Mexico Brading has studied a generous sample of mining enterprises and asserts that although the phenomenon was not unknown before the 1780's, that decade marked the 'widespread entrance of mercantile capital into the mining industry.' This was permitted according to him by, on the one hand, the extinction of Mexico City's merchant monopoly over trade, harder competition and a fall in trade profits and, on the other hand, a series of reforms (tax rebates, decrease in the price of raw materials etc.) and bonanzas which made mining more attractive to merchant capital. In late colonial Peru little mercantile capital was directly invested in mining, although merchants participated in mining profits through short term loans controlled by the aviadores. The most important direct investment of mercantile capital in Peru occurred in the 1810's and amounted to 40,000 pesos which compares very poorly with the many investments of over 100,000 pesos carried out by Mexican merchants in the late 18th century. As for Potosi in this period, there seems to have been a constant influx of merchants into the ranks of the miners/refiners. This did not mean, however, actual investment since they limited themselves to buying or renting mills and refrained from expanding milling capacity or developing

\textsuperscript{xviii} In the latter half of the 17th century, Antonio Lopez, a Potosi merchant, skilfully invested part of the capital obtained in commerce in large and successful mining projects. The obvious question is whether this was an exception or common behaviour among Potosi's merchants. For the case of Zacatecas Bakewell seems to imply that all merchant capital invested in mining up until c. 1700 occurred through loans to the miners and not directly. (50)
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new mines. Heavy subsidies of the state in the form of cheap labour provided by the repartimiento Indians, and loans in cash and mercury permitted a secure profit/rent which attracted many a disenchanted merchant. (51)

Direct taxes applied to silver mining consisted of the fifth (quinto), assayer fee and mintage and seigneurage duties. The two former were applied at the time of registering the silver in the local branches of the treasury and the two latter at the mint house. In between silver could be freely traded and in fact the mintage and seigneurage duties were paid usually by merchants or silver banks, although the discount applied by these included mint charges and duties. The fifth, in theory a 20% tax on silver production, varied considerably during the period. In Mexico miners obtained a reduction of the tax to 10% in 1548. This reduction was not applied, however, to merchant dealers and refiners (as opposed to miners) who paid a full 20%. A good deal of fraud (i.e. presenting merchants' or refiners' silver as miners') must have been committed since the quantities of silver paying 20% fell to an insignificant level by the end of the 17th century. In 1723 the crown, realistically, started applying a 10% flat rate for all silver. In Peru and Upper Peru the 20% tax was applied in full up until 1736 when it was reduced to 10% for all concerned. (52)

No major changes occurred in these levels of taxation except for extraordinary tax reductions. For instance, during 1802 and due to the extreme shortage of mercury, the fifth was reduced temporarily to 5% in Mexico. More importantly, from the 1760's onwards a series of prospective investors and miners were granted total or partial exemption
from the fifth in Mexico to undertake major and risky investments (see examples in Table 18). Obviously this encouraged production by decreasing its costs. The effects of tax reductions can be gauged in the case of Potosí for which complete production data are available (see Appendix 5, Column 1). During the quinquennium 1731-5 production amounted to 7.5 million pesos and direct taxes on silver mining amounted to 20.96% (the fifth at 20% and assage fee at 1.2%). In the following 5 year period (1736-40) total direct taxation equalled 11.08 (the fifth at 10% plus assayer fee at 1.2%) and the value of production more than doubled to 16.1 million pesos. In the long run however the increase was more moderate, from 13.9 million pesos in the 1720's to 17.1 million pesos in 1740. (53)

Unfortunately no accurate estimates of rates of return on capital in silver mining can be made since long term accounts specifying investments, cost of operation and income are not available. Rough estimates of rates of return can be obtained, however, with data on total income and total expenditure per annum for a relatively long period and making a generous assumption of the initial capital invested. This has been done for the cases presented in Table 19. For the case of the Valenciana mine we have (over) estimated the initial capital invested as 2,000,000 pesos, since by 1786 the cost of construction of the 3 main shafts of the mine amounted to 1,191,000 pesos and it is necessary to add the cost of construction of whims, costs of operation before obtaining any return, etc. On the other hand at least part of this investment appeared in the cost of production of the years
Table 18: Examples of tax reductions to Mexican silver miners in the late colonial period (in pesos)

<table>
<thead>
<tr>
<th>Miner/Camp</th>
<th>Period</th>
<th>Unpaid Taxes</th>
<th>Investment proposed or actually carried out</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.J. de Moya and successors (Pachuca)</td>
<td>1769-1801</td>
<td>c. 490,000</td>
<td>700,000</td>
</tr>
<tr>
<td>J. de Sierra and successors (Polanos)</td>
<td>1789-1798</td>
<td>647,794</td>
<td>825,000 (by 1791)</td>
</tr>
<tr>
<td>J. de I. Borda</td>
<td>1777-90</td>
<td>166,635</td>
<td></td>
</tr>
<tr>
<td>Quebradilla Mine Company (Zacatecas)</td>
<td>1809-1818</td>
<td>528,413</td>
<td>662,606 (by 1808)</td>
</tr>
</tbody>
</table>


Table 19: Profits and rates of return in selected mining enterprises at the end of the colonial period in Mexico and Potosí (in pesos)

<table>
<thead>
<tr>
<th>Enterprise</th>
<th>Cost of production</th>
<th>Income</th>
<th>Gross (1) Estimated</th>
<th>Rate of return (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabellon Mine</td>
<td>5,308,716 (Zacatecas) annual</td>
<td>8,834,820</td>
<td>3,526,104</td>
<td>50.3</td>
</tr>
<tr>
<td>La Valenciana</td>
<td>4,607,766 (Guanajuato) annual</td>
<td>9,846,434</td>
<td>5,239,766</td>
<td>21.9</td>
</tr>
<tr>
<td>La Valenciana</td>
<td>18,776,827 annual</td>
<td>30,946,412</td>
<td>12,167,585</td>
<td>27.6</td>
</tr>
<tr>
<td>Potosí (average of enterprises operated with repartimiento Indians)</td>
<td>853,092</td>
<td>1,102,016</td>
<td>533,900</td>
<td>54.8</td>
</tr>
</tbody>
</table>

(1) Obtained by dividing gross profit by costs of production.
(2) Obtained by dividing annual gross rate of profits by estimated investments.
1774-86. In any case the investment in the first years after the mine was open (1760) until it began to produce high returns (1768) seems to have been very modest in view of the fortune of the owners. (54) For the Pabellon mine our estimate is based on the declaration of the owners that they had 'lost' 412,566 pesos in the Vetagrande and Pabellon mines on capital construction. The operation of both mines can be considered a combined venture. For the case of Potosi gross profits are calculated by adding the rent charged by the mill owners (11.8% on average) to the profits of the operators (5.6%). If we assume that the rent was c. 5% of the invested capital we can obtain 7.4% as the combined rate of return. The main problem is the representativity of these cases of 18th century silver mining. The rates of return of La Valenciana and Pabellon were certainly not average but were probably not isolated cases either. Thus it was claimed that the mine 'La Purisima' in Catorce averaged a gross profit of 200,000 pesos per annum from 1788-1806. Similarly in the Veta Viscaina mine in Real del Monte the Count of Regla produced an average of c. 700,000 pesos per year from 1759-81. A substantial part of this production must have been profits since the Count spent at least 1.3 million pesos on patriotic and pious donations and over a million pesos buying haciendas. On the dark side of the picture the Fagoada family, miners of the successful 'Pabellon' mine declared that they had lost 1.8 million pesos by 1804 in different mining ventures. In the 1760's the same family lost 500,000 pesos trying to drain a mine in Real del Monte and in the same decade a mining company had failed to recover the mine 'Quebradilla' after an investment of 250,000 pesos. As for the case of Potosi it must be
remembered that the average rate of return given in the table corresponds to the privileged sector which was allotted repartimiento Indians and that the general average must have been lower than this. (55)

The data presented above points to the fact that by the late 18th century the limits of variation of profitability in large mining enterprises were extremely fluid, permitting the creation of enormous fortunes as well as bankruptcies in short periods of time. As compared with agriculture or silver refining, silver mining proper was a highly risky venture since no accurate estimates of costs and returns could be made in advance. For the 16th and 17th centuries, little data is available. Bakewell suggests that Zacatecas silver mining from c. 1620 onwards was scarcely profitable but had been more successful before that date. For Potosi, the size of the mining fortunes, investments and conspicuous expenditure indicate that profits were high at least until the mid 17th century. The sudden, if short lived, bonanzas of more marginal silver mining camps and the small quantity of capital invested also suggest a high level of profits. However it must be remembered that in these situations risks and profits were usually shared with the workers through the system of 'partidos'. (56)

4) Other metals

Apart from gold and silver many other metals were discovered and exploited in colonial Spanish America but only mercury and, to a lesser extent, copper and tin were of economic importance. Thus, small quantities of iron were extracted and worked in America and Peru, especially when
communications with Spain were broken, but in general Spanish iron provided for the needs of Spanish American mining, agriculture and building. Lead was widely used in silver mining as a flux but probably its abundance made it economically unimportant.\(^{(xix)}\) \(^{(58)}\)

Tin and copper were exploited in the early stages of the colonial period. Their use as alloys to produce bronze used in cannons and bells and, in the case of copper, its use as an alloy for the coinage of silver and gold, for making utensils used in the sugar and mining industries, etc., created a constant but limited demand for these metals during the 16th and 17th centuries. Apart from the strictly local demand there were some exports during that period. Thus small quantities of tin were exported from Peru to Mexico and an average of 1,000 quintales p.a. (1 quintal = 100 pounds) of copper were exported from Cuba to Spain during the first quarter of the 17th century. What really spurred Spanish American copper and, probably, tin production was the European demand during the second half of the 18th century. As can be seen in Table 22, Spanish imports of copper and tin rose sharply during the 18th and early 19th centuries. Unfortunately, we do not have information about tin production, but the situation in 18th century copper producing countries clearly proves the point. \(^{(59)}\)

\(^{(xix)}\) Other metals known but exploited little or not at all in colonial Spanish America were zinc, platinum, manganese and vanadium. Chemical compounds of importance exploited in the Indies were salt and nitrate. They were virtually free goods until the crown monopolised them. \(^{(57)}\)
By the 1740's the only colonies in a condition to export copper were Mexico and Chile. Cuban production had fallen below 200 quintales p.a. or less than the local demand and Upper Peruvian copper was too expensive (29-38 pesos per hundredweight in Callao, the place of export, against 12 for Chilean copper in the same place). During most of the 18th century production in Mexico was below the 7,500 hundredweight mark. The demand for copper by the crown, which had established a monopoly of copper purchases and fixed the prices at 18 pesos per hundredweight in 1780, produced an acute scarcity of copper for the Mexican economy. The requirements of the Mexican economy were for about 5,000 hundredweight p.a. and at the same time shipments to Spain were increasing (2,040 cwt p.a. from 1774-1783 and 5,550 cwt p.a. the following decade).

Table 20: Spanish Imports of Copper and Tin from the Indies during the Latter Part of the Colonial Period (in hundredweights)

<table>
<thead>
<tr>
<th>Year</th>
<th>Copper As % of Total S.A. Imports (in weight)</th>
<th>Tin As % of Total S.A. Imports (in weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) 1650-99</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(2) 1717</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2) 1726-38</td>
<td>1.573</td>
<td>0</td>
</tr>
<tr>
<td>(2) 1747-56</td>
<td>31,602</td>
<td>4,973</td>
</tr>
<tr>
<td>(2) 1757-66</td>
<td>62,172</td>
<td>12,403</td>
</tr>
<tr>
<td>(2) 1767-76</td>
<td>131,032</td>
<td>9,700</td>
</tr>
<tr>
<td>(2) 1777-8</td>
<td>19,339</td>
<td>780</td>
</tr>
<tr>
<td>(3) 1799-1808</td>
<td>32,693†</td>
<td>6,269†</td>
</tr>
<tr>
<td>(3) 1809-1818</td>
<td>59,433†</td>
<td>17,054†</td>
</tr>
</tbody>
</table>

† None or very few imports.
Source: (1) García Fuentes 1980: 327-78 passim. (2) García Baquero 1976, 1:340-1.11:222-47 passim. (3) García Baquero 1972:145-206 passim. Years 1812-14 are missing. These figures register only the copper and tin received in Cadiz.
By the 1740's the only colonies in a condition to export copper were Mexico and Chile. Cuban production had fallen below 200 quintales p.a. or less than the local demand and Upper Peruvian copper was too expensive (29-38 pesos per hundredweight in Callao, the place of export, against 12 for Chilean copper in the same place). During most of the 18th century production in Mexico was below the 7,500 hundredweight mark. The demand for copper by the crown, which had established a monopoly of copper purchases and fixed the prices at 18 pesos per hundredweight in 1780, produced an acute scarcity of copper for the Mexican economy. The requirements of the Mexican economy were for about 5,000 hundredweight p.a. and at the same time shipments to Spain were increasing (2,040 cwt p.a. from 1774-1783 and 5,550 cwt p.a. the following decade).

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<table>
<thead>
<tr>
<th>Period</th>
<th>Copper S.A. Imports (in weight)</th>
<th>Tin S.A. Imports (in weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) 1650-99</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>(2) 1717</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2) 1718-27</td>
<td>7,279</td>
<td>1.53</td>
</tr>
<tr>
<td>(2) 1728-38</td>
<td>1,573</td>
<td>0</td>
</tr>
<tr>
<td>(2) 1747-56</td>
<td>31,602</td>
<td>4.973</td>
</tr>
<tr>
<td>(2) 1757-66</td>
<td>62,172</td>
<td>14,803</td>
</tr>
<tr>
<td>(2) 1767-76</td>
<td>131,912</td>
<td>9,200</td>
</tr>
<tr>
<td>(2) 1777-8</td>
<td>19,329</td>
<td>780</td>
</tr>
<tr>
<td>(3) 1799-1808</td>
<td>32,693</td>
<td>6,269</td>
</tr>
<tr>
<td>(3) 1809-1818</td>
<td>59,433</td>
<td>17,054</td>
</tr>
</tbody>
</table>

* None or very few imports.
A rise in price from 18 to 22 pesos per hundredweight in 1799 permitted the miners to increase production to more than 10,000 hundredweight p.a. and to meet effective demand in the 1800's. For Chile the first royal purchases of copper occurred in the mid-1740's and they increased to 14,826 and 23,392 quintales p.a. during the 1780's and 90's to fall to 10,443 during the 1800's. The impact of these and private purchases from Peruvian and Spanish merchants can be seen in Table 21. A first, immediate effect of this demand was the rise in price which more than doubled from the 1730's to the 1740's. A second and more lasting effect was the sharp sustained increase in production which rose 27 fold from the 1730's to the 1790's and continued to increase in the next three decades. (60)

Table 21: Chilean Copper Production, Prices and Exports 
During the 18th Century

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (quintales)</th>
<th>Average price in the Producing Region (La Serena, Chile) (pesos)</th>
<th>Production in Quintales (100 lb)</th>
<th>Exports in Quintales (Annual Average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1690-99</td>
<td>46,080</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1700-09</td>
<td>81,080</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1710-19</td>
<td>36,250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1720-29</td>
<td>68,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1730-39</td>
<td>33,080</td>
<td>122,800</td>
<td>11</td>
<td>6,610</td>
</tr>
<tr>
<td>1740-49</td>
<td>63,400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1750-59</td>
<td>122,800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1760-69</td>
<td>148,800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1770-79</td>
<td>601,200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1780-89</td>
<td>815,360</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1790-99</td>
<td>1,396,560</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1800-09</td>
<td>1,299,620</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1810-19</td>
<td>1,987,320</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1820-29</td>
<td>4,541,100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


We have already referred to the importance of mercury for the silver industry and the supply of this metal to the mining
industry which came from Europe and Huancavelica (Peru). Here we will deal with the difficulties of exploitation of mercury with special reference to the Huancavelica district. Mercury was sought and found in many of the Spanish American colonies throughout the colonial period but everywhere, except Huancavelica, the results were disappointing and little mercury was produced. The most paradoxical situation occurred in Mexico, today one of the six major producers of the metal, which depended during the colonial period on an irregular supply of mercury from Europe and Huancavelica to supply its amalgamation works. The first attempts to exploit mercury in Mexico were made in 1555, the very year that the amalgamation process began to be used in the colony, but without success. New attempts occurred in 1570 and intermittently during the 17th and 18th centuries, with a total production of probably under 1,800 quintales for the whole colonial period. The only production of any significance occurred in 1788-1802 when, since no mercury was received from Europe due to the Anglo-Spanish war, 1,500 quintales were produced in Guanajuato at the exorbitant cost of 200 pesos per quintal. The search for and modest production of mercury occurred throughout the colonial period and especially in the late 18th century in Peru and Upper Peru, Ecuador, Chile, Argentina and Colombia. (61)

On the other hand, the Huancavelica district produced, between 1571 and 1813, c. 1,100,000 quintales of mercury (or c. 82,000,000 pesos), which was duly registered with the crown, and a significant amount of metal which evaded fiscal control. The principal reason for this success was the high mercury content of the ore extracted. Thus in the 1640's
the average ore extracted in Huancavelica was 10% or more while in 17th century Mexico, of 36 experiments conducted with local ores 35 did not produce more than 2.5% and 24 under 1%. Apart from this, the institution of an extensive repartimiento system for the district, the relative isolation of Peru and Upper Peru from Europe and the enormous mercury demand of Potosí were conditions which favoured large-scale production during the period. (62)

From the early 1570's to 1781 the exploitation of the Huancavelica mines was subject to contracts between the crown and the mining entrepreneurs according to which the state provided a grant of repartimiento Indians and bought all the mercury produced at a given price. The miners for their part were themselves obliged to produce a given quota of mercury, to pay the Indians specific salaries and to comply with the crown ordinances relating to mercury mining. During the rest of the colonial period the crown just administered the mining directly (1782-95) and then opened the mines to anyone interested in their exploitation, with the sole condition that all the mercury purchased was sold to the crown at a given price. The conditions established by these contracts are summarised in Table 22. The amount demanded by the crown was based on the effective demand in America and especially Potosí. Thus the introduction of the amalgamation process in the mid and late 1570's in Potosí and the shortage of mercury in Peru in the 1600's created a rise in the quota to be reached by the producers. On the other hand in c. 1600 levels of production were forced down by the crown, first by a reduction of the repartimiento in 1595 and then by establishing a very low maximum for production in 1604. The amount of mercury actually
Table 22: Conditions Agreed by the Crown and the Miners in the Exploitation of the Huancavelica Mercury Mines and Effective Production [16th and 17th Century]*

<table>
<thead>
<tr>
<th>Year</th>
<th>Repartimiento Indians Granted by the Crown **</th>
<th>Wages of the Repartimiento Indians (Reales)</th>
<th>Price Paid</th>
<th>Production Agreed (Quintales p.a.)</th>
<th>Effective Production (Quintales p.a.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1573</td>
<td>500-900</td>
<td>64.23</td>
<td>1,500</td>
<td>2,012</td>
<td></td>
</tr>
<tr>
<td>1574-6</td>
<td>500-900</td>
<td>64.23</td>
<td>4,000</td>
<td>1,365</td>
<td></td>
</tr>
<tr>
<td>1577-80</td>
<td>3,280</td>
<td>1.75</td>
<td>9,000</td>
<td>5,927</td>
<td></td>
</tr>
<tr>
<td>1581-5</td>
<td>3,000</td>
<td>2.25</td>
<td>7,500</td>
<td>7,700</td>
<td></td>
</tr>
<tr>
<td>1586-9</td>
<td>3,000</td>
<td>2.25</td>
<td>6,800min</td>
<td>8,082</td>
<td></td>
</tr>
<tr>
<td>1590-4</td>
<td>2,274</td>
<td>1.75</td>
<td>69.5</td>
<td>9,000</td>
<td></td>
</tr>
<tr>
<td>1595-1603</td>
<td>c.1,137</td>
<td>2.50</td>
<td>3,160max</td>
<td>2,551</td>
<td></td>
</tr>
<tr>
<td>1604-8</td>
<td>1,600</td>
<td>2.50</td>
<td>77.8</td>
<td>1,004</td>
<td></td>
</tr>
<tr>
<td>1609-17</td>
<td>2,200</td>
<td>2.50</td>
<td>4,600min</td>
<td>6,104</td>
<td></td>
</tr>
<tr>
<td>1618-23</td>
<td>2,200</td>
<td>2.50</td>
<td>6,000</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>1623-9</td>
<td>1,400</td>
<td>3.50</td>
<td>4,200min</td>
<td>3,351</td>
<td></td>
</tr>
<tr>
<td>1630-15</td>
<td>1,400</td>
<td>3.50</td>
<td>4,200</td>
<td>5,578</td>
<td></td>
</tr>
<tr>
<td>1645-50</td>
<td>620</td>
<td>3.50</td>
<td>4,884</td>
<td>4,884</td>
<td></td>
</tr>
<tr>
<td>1650-82</td>
<td>620</td>
<td>3.50</td>
<td>5,777</td>
<td>5,777</td>
<td></td>
</tr>
<tr>
<td>1683-1744</td>
<td>620</td>
<td>3.50</td>
<td>4,713***</td>
<td>4,713***</td>
<td></td>
</tr>
</tbody>
</table>

* Source: Roel 1970: 103-10, 112-20 passim. We were not able to read G. Lohman's 'Las Minas de Huancavelica en los siglos XVI y XVII', Sevilla 1949.

*** Only period 1683-1700.

** Repartimento Indians worked only one week out of every three (Brading et al 1972: 558-9).

produced depended not only on the demand but also on the size and cost of the labour force, the quality of the ore extracted and technological developments. In the eyes of the crown there was a marked correlation between production and the size of the labour force. Thus in 1590 and 1630 the miners were supposed to deliver at least 3 quintales of mercury for every repartimiento Indian granted by the crown. The correlation which was not close as can be seen in the table, was affected by technological factors as well as the illegal use of the repartimiento Indians in tasks not related to mercury production, the commutation of the service in the mine into money and the
use of free labour. The use of free labour became important from the early 17th century as the decrease of the population in the provinces affected by the Huancavelica repartimiento impeded the recruitment of the forced workers estimated necessary for the mine. For instance in 1618 the crown had to lower the quota from 2,300 to 2,200 forced workers because not enough Indians were available, and by the end of the 17th century usually no more than half of the relatively low figure of 620 was achieved. Thus by the late 1660's Huancavelica's labour force was composed of 3,000 to 4,000 workers of which less than 620 (or a maximum of 20%) were forced workers. The scarcity of the repartimiento Indians, who were paid less than half the rate reached in the free labour market, must have increased the cost of exploitation of the mines. (63)

By the 1760's the richest deposits of the mine had been exhausted and officials calculated that the mercury content of the ore extracted in Huancavelica had fallen to about a third of the proportion found in the ores extracted during the 17th century. The decrease in the mercury content of the ore extracted was a slow process which was off-set during the 17th and early 18th centuries by several technological developments. By the late 1630's a new system of refining the ore was invented and adopted in Huancavelica, and later it was also adopted in Almaden. It permitted the refining of low grade ores, a substantial economy of labour and fuel and reduced the danger of asphyxiation of the workers by poisonous gases. In 1642 an adit of c. 600 yards (started in 1605) was completed permitting a dramatic rise in the productivity of the carriers inside the mine, ventilation of the mine, which made it safer for the workers, and access to new mercury
use of free labour. The use of free labour became important from the early 17th century as the decrease of the population in the provinces affected by the Huancavelica repartimiento impeded the recruitment of the forced workers estimated necessary for the mine. For instance in 1618 the crown had to lower the quota from 2,300 to 2,200 forced workers because not enough Indians were available, and by the end of the 17th century usually no more than half of the relatively low figure of 620 was achieved. Thus by the late 1660's Huancavelica's labour force was composed of 3,000 to 4,000 workers of which less than 620 (or a maximum of 20%) were forced workers. The scarcity of the repartimiento Indians, who were paid less than half the rate reached in the free labour market, must have increased the cost of exploitation of the mines. (63)

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deposits. Two new adits were opened in 1737 and 1763. Finally the use of underground blasting, which had been tried unsuccessfully in the 1630's, became generalised in 18th century Huancavelica and the resulting increase in the productivity of labour meant that the exploitation of low grade ores became economically viable. (64)

The 1760's (see Table 14 above) marked the production peak of the 18th century with 59,000 quintales. Production decreased sharply to 43,000 and 26,900 during the two following decades. The cost of production increased as well and during 1782-92 the average cost of each quintal of mercury produced was 111 pesos, or more than twice the cost of production in the first half of the 17th century and more than 7 times the average cost of production of Almaden (Spain) during the first half of the 18th century (less than 15 pesos per quintal). The situation in the Huancavelica district slightly improved with the discovery of the mine of Sillacasa in 1794 which permitted an increase in production to 32,000 quintales in the 1790's and a reduction of production costs to less than 73 pesos per quintal. This recovery was, however, short lived since Sillacasa was rapidly exhausted and production fell in the 1800's to 26,570 quintales, and finally collapsed during the 1810's. (65)

Mercury production and distribution presented one of the biggest financial, political and moral problems faced by the crown during the colonial period. As the key to a growing silver production its supply in the Indies, whatever its source, was fundamental for Spanish finances. As a royal monopoly mercury distribution was a source of income in its own right and this revenue had to be protected against fraud, which
was easily practised in the Indies, (xx) and against losses of revenue caused by inefficient production. Although Spanish production (Almadén) was equally efficient up to the 1640's and far more efficient than Huancavelica during the 18th century, Spanish production was not always enough to satisfy the Spanish American demand. The fact that communications with Peru were time consuming and costly during the 16th and 17th centuries and that commerce between Spain and the Indies virtually stopped during the wars of the late 18th century, facilitated the continuation of mercury production in Huancavelica until the end of the colonial period. It also permitted its production elsewhere in the Indies and, in periods of acute scarcity, some state financial aid was provided to the miners to develop Spanish American mercury sources. In periods of abundant supply, however, the crown was unsympathetic towards this production and at least on some occasions it banned its exploitation altogether. As a result no competitive mercury production emerged apart from Huancavelica, where production was protected and subsidised by a Peruvian price, which was higher than the local cost of production, and an influx of cheap labour through the repartimiento system. The latter was condemned by royal bureaucrats because of the dangers involved in mercury mining (poisoning, suffocation because of lack of ventilation etc). However, the mines, being vital for Potosí and Peruvian silver production were allowed a quota of forced labour until the end of the colonial period. (67)

(xx) In Huancavelica, illegal production was estimated at 33% and 20% in the 1580's and 1610's respectively. To some extent the crown itself stimulated these frauds by delaying payments for the mercury delivered by the miners. (66)
B) Note on Industry

During the conquest and immediately afterwards numerous Spanish artisans arrived in the Indies. Although many of them did not maintain their trades and became encomenderos or agricultural entrepreneurs, a sizeable proportion of them continued to practise their trades, trained Indians and black slaves and established workshops to serve the more immediate needs of the Spanish population. Among the post-conquest Indian population the highly skilled crafts which furnished the consumption of the prehispanic elites tended to disappear. However Indian domestic industry supplying the day to day needs of the Indian communities continued and new skills were assimilated from the Spaniards to provide tributes for the encomenderos or to meet their own needs. Apart from domestic and artisan industry, manufacturing industry, which was more important within the context of the market economy, developed in the textile sector by the end of the 16th century.(68)

The importance of industry within the context of the Spanish American economy is difficult to gauge, especially if we include domestic production, since data is particularly difficult to come by. However contemporary or modern estimates and partial data on production and consumption in some geographical areas allow us to form at least a rough impression of its significance. One of these estimates is that of Jose M. Quiros, secretary to the Merchant Guild of Veracruz. His estimate of early 19th century Mexican production is summarised in Table 23. According to his data the value of industrial production constituted 19.1% of total Mexican production and, within it, textile and leather products predominated, each
constituting over 25% of the total industrial production. The only other products of significance were bread (20.7%), shoes (9.2%) and soap (7.8%), while the rest of the items listed did not surpass 2% of the total. Despite important omissions, underestimates and overestimates, Quiros' data give us a rough approximation of the situation of industry in Mexico. For Spanish South America qualitative data and partial quantitative data suggest a similar participation of industry within the economy as a whole, but within the industrial sector itself textile production seems to have been the most important. (70)

Equally difficult to gauge is the relative importance of domestic, artisan and manufacturing production within industry. Some miscellaneous data can, however, give a rough indication of the magnitudes involved. In 1773 in Lima, 584 artisans or artisans' shops sold goods to the value of 246,867 pesos or an average of 422.7 pesos per enterprise. At the other end of the spectrum the textile mill (obraje) of Pichuichuro in Cuzco, Lower Peru, had annual sales which can be conservatively estimated at 40,000 pesos. The scope of the latter was however impressive with a labour force of c. 500

(xx1) An indication of the relative importance of agriculture and industry is given by the imports (European imports excluded) of the city of Potosi in 1603 and 1794 and sales in that city in 1793. Agricultural imports averaged almost three-quarters of the total and manufactured products around a quarter. Mining imports were of course insignificant given the nature of the city. Among manufactured goods textiles were the leading item, comprising over a half of the total, followed by bread, while leather products played a very small role. This is of course a very gross index since it refers to a leading mining urban centre with very specific characteristics. For Lower Peru in the latter half of the 18th century Tord and Lazo have estimated the participation of the rural textile industry in commercialised production at 10% while the rest of industrial production had little relevance in commercial terms. (69)
Table 23: Estimated Industrial Production in Early 19th Century Mexico (excluding Yucatan) (In Pesos)*

<table>
<thead>
<tr>
<th>Items/Sectors</th>
<th>Value</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woollen textiles</td>
<td>7,401,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton textiles</td>
<td>3,000,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imported textiles dyed locally</td>
<td>100,000</td>
<td>25.3</td>
<td></td>
</tr>
<tr>
<td>Hats</td>
<td>500,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver and gold goods</td>
<td>500,000</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Leather goods</td>
<td>11,112,500</td>
<td>25.6</td>
<td></td>
</tr>
<tr>
<td>Shoes</td>
<td>4,000,000</td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td>Bread</td>
<td>9,000,000</td>
<td>20.7</td>
<td></td>
</tr>
<tr>
<td>Chocolate</td>
<td>830,078</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td>Soap</td>
<td>3,394,772</td>
<td>7.8</td>
<td></td>
</tr>
<tr>
<td>Wax goods (manufactured)</td>
<td>89,843</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Manufactured goods of hemp and other similar fibres</td>
<td>350,000</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Musical instruments and toys</td>
<td>350,000</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Pottery</td>
<td>500,000</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Bricks</td>
<td>500,000</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Carriages</td>
<td>200,000</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Gunpowder</td>
<td>700,000</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Iron and steel manufactured goods</td>
<td>883,425</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Total: Industry</td>
<td>43,411,618</td>
<td>100.0</td>
<td>19.1</td>
</tr>
<tr>
<td>Transport</td>
<td>6,400,000</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Mining</td>
<td>29,301,000</td>
<td>65.2</td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>148,241,121</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>GRAND TOTAL:</td>
<td>227,353,739</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Quiros 1973 (1817):262-4. For a general explanation and criticism of this estimate see Chapter 3 Table 4. With respect to industry Quiros allegedly underestimated the value of cotton textiles (Quiros 1973:244), he did not include in industry manufactured tobacco, the sale of which totalled an average of 7.7 million pesos p.a. in 1801-2 (Humboldt 1966:453), and he probably overestimated the importance of bread, shoes and soap by applying the per capita consumption in Mexico city, where the Spanish and hispanised population was higher than the average for the whole of Mexico.
Indians, 40 looms, 60 spinning wheels, a hydraulic fulling machine and so on. Another indication of the relative importance of artisan and manufacturing production is given by the textile industry. In Mexico in 1793, the artisan textile industry was represented by 11,409 independent looms, while there were 41 textile mills with an average of 12 looms or a total of around 500 looms. In Lower Peru the total number of looms was estimated at 4,000 in 1790. Three-quarters of them belonged to 150 textile mills having an average of 20 looms each and the rest to the artisan sector. Finally, because of its nature little information is available on domestic industry. Its importance only emerges in the literature when it was commercialised by the encomenderos who received that production as tribute or when it was purchased by the textile mills as raw material. (71)

Apart from textiles which will be dealt with in detail below, it is necessary to mention briefly two industries which in specific periods and areas played an important role in the colonial economy: ship building and tobacco manufacture. Shipbuilding started in Spanish America in the early 16th century and continued throughout the colonial period with periods of growth and decay. Major shipbuilding ports were Realejo and Guayaquil on the Pacific and Havana in the Caribbean. It is reported that some 114 ships, 51 of them warships with over 60 cannons each, were built in Havana in the period 1724-96. This presupposes a large scale industry since the value of such warships was well over 500,000 pesos, although cannons, iron fittings and sails were imported from Spain. Shipbuilding in Pacific Spanish America was on a more reduced scale since the traffic was less important and some of the Spanish ships
operating in the Pacific were built in the Philippines. (72) Tobacco manufacture reached a high level of development in Mexico in the last years of the colonial period after the establishment of a royal monopoly. By the beginning of the 19th century the labour force employed in the manufacture of cigars and cigarettes was around 10,000 and was concentrated in two big workshops in Mexico City and Queretaro. The net profits of this industry in 1801-1802 were on average 4 million pesos p.a. with total sales p.a. reaching 7.7 million. This high level of sales and profits is explained by the monopoly situation which permitted the purchase of raw material at low prices and not by means of technological or organisational developments. In fact big tobacco workshops only concentrated the workers in factories but did not create a division of labour or introduce machinery to increase the productivity of labour. In other colonies, such as Peru and Cuba, royal manufactories of tobacco were also present but their scope was more limited due to the smaller size of their markets, and the fact that private manufacture of tobacco previously bought from the royal monopoly was permitted; this was not the case in Mexico. (73)

The Textile Industry

The need for textile production to be under the control of the Spaniards in the Indies was not felt immediately after the conquest. Plunder and Indian tributes provided the means of payment for the import of textiles for the colonists from Spain, and domestic native industry continued to provide the Indians with cloth outside the commercial orbit. However, the creation of big concentrations of Indians and black specialised
workers in the mines, sugar mills and urban centres created a substantial demand for coarse cloth which was too bulky to import from Spain. Initially Indian tribute, which was paid in textiles, and Indian production controlled by the encomenderos satisfied this demand, but progressively, encomenderos, other Spanish entrepreneurs and Indian communities established textile enterprises which were relatively or totally independent from the tribute system. On the other hand, by the mid-16th century, the expansion of the Spanish population in the Indies and the incapacity of Spanish industry to satisfy the American demand for quality cloth at a low price, created the need for workshops in the Indies where this type of cloth could be manufactured by Spanish technicians and an Indian labour force. Cheap wool and cheap labour, together with the expertise of the Spanish artisans trained in the more advanced textile centres of Spain, permitted the establishment of a relatively sophisticated textile industry which grew into big units of production with a relatively high division of labour and capital investment by the end of the 16th century. (74)

The first textile obrajes (xxii) in the Indies were created

(xxii) The units of commercialised production in the textile industry in late colonial Spanish America were referred to as 1) obrasjes, 2) obrajillos and 3) trapiches, chorrillos or telares sueltos. Although no rigorous distinction can be made between them, in general the first type corresponded to large textile workshops which were usually provided with a fulling machine and 10 or more looms and which produced woollen cloth of relatively high quality. Trapiches, chorrillos and telares sueltos were, on the contrary, small workshops with one or two looms and a handful of workers. Not having access to specialised labour or a fulling machine their production was extremely coarse and they tended to specialise in cotton textile production. The category obrajillos was somewhere in between. In the early colonial period it seems that all commercial textile industry was referred to as obrasjes.
in the 1530's in Mexico, in the mid 1540's in Lower Peru and in c. 1560 in Ecuador. By the end of the 16th century obrajes were in operation in most mainland Spanish colonies, although it is not clear which colonies really reached the level of manufacturing production or obraje proper. This stage was certainly reached by at least some obrajes in Mexico and Lower Peru by the 1560's and in the Audiencia of Quito (present Ecuador) and in Tucuman (Argentina) by the end of the 16th century. The evolution of these textile centres was marked by severe inter-colonial and European competition, but it was also influenced by internal factors such as the availability of cheap labour and raw materials and the creation of substantial new markets. Thus the important woollen manufacture existing in the 1590's in Chile was virtually wiped out by the Indian uprising of 1599. The cotton textile industry of Tucuman, which exported 100,000 pesos worth of cloth to Potosi in the early 17th century, languished after 1620 limiting itself to supplying part of the local demand. This decline was due, according to the hypothesis of Assadourian, to the emergence of cheaper woollen cloth produced in Peru and Ecuador. In Peru, Ecuador and Mexico textile production remained important throughout the colonial period but even in these cases, important changes in the size and the structure of the textile industry occurred. Table 24 summarises the quantitative data on Mexican, Ecuadorian and Peruvian obrajes and despite its incompleteness roughly describes these changes.

In Mexico the main change between the early 17th and the late 18th centuries was the decrease in the number of textile mills (obrajes) although little can be said about artisan production since no data exist for the 17th century.
Table 24: Number of Obrajes in Colonial Mexico, Peru and the Audiencia of Quito

<table>
<thead>
<tr>
<th></th>
<th>c.1620's</th>
<th>c.1700</th>
<th>c.1790</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
</tr>
<tr>
<td>Number of Obrajes</td>
<td>of Workers</td>
<td>of Looms</td>
<td>of Looms</td>
</tr>
<tr>
<td>Mexico as a whole</td>
<td>142</td>
<td>43</td>
<td>(c.3,800)</td>
</tr>
<tr>
<td>Oaxaca</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>63</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Guanajuato and Queretaro</td>
<td>16</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Michoacan</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Puebla-Tlaxcala</td>
<td>63</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Far North</td>
<td>0</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Veracruz</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>n.d.</td>
<td>150</td>
<td>3,000</td>
</tr>
<tr>
<td>Audiencia of Quito (Ecuador)</td>
<td>48</td>
<td>169</td>
<td>10,000+</td>
</tr>
</tbody>
</table>

* Blank spaces mean no data. Figures in brackets are estimates.

(1) For the 1610's (i.e. 1604) Chevalier 1963:108. In this report 4 towns were listed as having 'other obrajes' and 3 as having 'many others'. We have transformed the first expression into 2 and the second into 4 obrajes. For c.1790 (i.e. 1793) Florescano et al 1980: 164-66. Number of workers and looms of the obrajes have been estimated by extrapolating data for Queretaro in 1793 (17 obrajes with 1,500 workers and 227 looms) for all Mexico. (See Super 1976:232 and Halperin (ed) 1978:224.


(3) Tyer 1976:176,313-25. Includes obrajes and obrajuelos. For instance data for 1700 includes 80 or more obrajes with 30 or more workers and around a hundred obrajuelos of less than 30 workers (Tyer 1976:104). Data for the 1610's correspond to the 1620's and those for 1790 to the 1780's.
A change which is not registered in the table is the size of the obrajes which seems to have increased during these two centuries. Thus during the early 17th century it is likely that no single obraje had a labour force exceeding 150 workers and the average was c.45 workers per mill, however, in the 18th century the labour force of at least one textile mill reached a total of 500 people and the average labour force of the mills was probably c.80. (xxiii)

The changes experienced in the geography of the obrajes are more clear. During the 17th and 18th centuries large textile industries almost disappeared from central Mexico (the intendencias of Mexico and Puebla-Tlaxcala) and became concentrated in Guanajuato and, to some extent, northern Mexico. The displacement of large textile industry towards the north was caused by at least three factors: 1) the creation of substantial markets for textiles in the mining north (Guanajuato, Zacatecas, etc), 2) the protection from European competition provided by the long distance between the port of Veracruz and those markets and 3) the displacement of sheep flocks and population towards the north. (77)

In 17th century Ecuador several favourable conditions combined to make the colony highly industrialised with textile exports worth 600,000 to 1,000,000 pesos a year. These conditions included the existence of around 1,000,000 sheep in the colony by the beginning of the 17th century, an increasing Indian population up until the 1690's, the non-existence of important

(xxiii) The mill referred to is that of Juan de Sauto in San Miguel in 1761. The average mentioned corresponds to the city of Queretaro whose 18 mills employed 1,500 workers in 1793. (76)
mining activities to employ these Indians and to provide the Spanish elite with the cash necessary to import luxury items, and the lack of serious competition from European textiles due to the relative isolation of the Southern Pacific from European trade. From around 1700 these favourable conditions slowly disappeared. Famine, epidemics and several earthquakes reduced the Indian tributary population from 60,000 in the 1690's to between 40,000 and 45,000 during the 18th century, and it seems that these disasters also reduced the size of the sheep flocks. More importantly, the price of the main item of export, the paño Azul, a fine blue woollen cloth, fell gradually from 26 reales per vara in the first half of the 17th century to 16 to 18 reales per vara in the latter half of the 18th century in the Lima market. Consequently the value of Quito's textile exports declined to 275,000-400,000 pesos per annum in the last years of the 18th century, which represents a decline of over 50% from the pre-1700 levels. This commercial crisis led to a reduction in the number of Quito's obrajes and their labour forces and the switch from quality cloth production to the production of coarse cloth which was not yet threatened by European competition. (78)

Colonial Spanish American textile mills used initially all the labour systems available to other entrepreneurs, from slavery to free labour. In Mexico, although repartimiento labour in obrajes was not banned until 1621, its importance as a source of labour power for the obrajes seems to have been negligible. Instead a combination of relatively free labour, debt peons whose actual status was virtually slavery, African slaves and penal workers predominated up until the end of the colonial period. African slaves formed a substantial but not
predominant part of the labour force during the 17th century although their importance decreased rapidly during the 18th century. Penal labour, on the other hand, was an important but secondary part of the labour force of the Mexican obrajes throughout the period. As for debt peonage its importance increased during the 18th century and it seems to have been the dominant labour system in Mexican obrajes by the 19th century. (xxiv) (80)

In the Audiencia of Quito the obrajes sprung directly from the encomienda system. During the second half of the 16th century tributes due to the encomenderos or the crown were paid by the Indian communities by manufacturing textiles out of the raw material provided by the former. By the early 17th century, 14 obrajes belonging to Indian communities were in operation using mainly forced labour; this was both encomienda and repartimiento labour. Private obrajes started to appear by the late 16th century, a century later, they were the dominant sector in textile production and by 1728 the private sector had absorbed the community obrajes. Several of the private obrajes received repartimiento Indians but the rest employed free or indebted workers. It can be estimated that forced labour, that is repartimiento and encomienda, provided between 35 and 40% of the total labour force of the obrajes in 1680. (xxv) In the 1710's forced labour was suppressed

(xxiv) In 1802, 2,000 out of 3,000 obraje workers remained locked up by the factory owners in the city of Queretaro. This may or may not be representative of the rest of Mexico but the importance of the city in industrial terms, it contained 18 out of the 43 Mexican obrajes, indicates the importance of coercive labour for Mexican obrajes as a whole. (79)

(xxv) The encomienda and repartimiento labour of the obrajes was composed of 3,588 tributary Indians plus 700 Indian boys under (continued p. 403)
by the crown but this made little difference, since workers were already heavily indebted to the owners or lessees of the obrasjes. Free labour developed mainly in the urban obrasjes, which were a small minority, but even in this case they represented only a fraction of the labour force. The pre-capitalist character of the labour system employed in the obrasjes appears even clearer if we consider that in the rural obrasjes 80-90% of the total labour force remained at least partially peasants. They had subsistence plots of land given by the community or the hacienda owner of the obraje, and were legally allowed 7 weeks to work on it, and salaries were paid mainly in kind in such items as cloth produced in the obraje, food and other commodities and land in the case of the haciendas. (82)

For Lower Peru the data available do not permit us to establish the character and evolution of the labour structure. Partial and qualitative data, however, suggest an even less advanced labour system than those operating in Quito and Mexico. Firstly repartimiento drafts for the obrasjes continued up until the early 19th century, although the importance of this type of labour within the context of the obraje economy is unknown. Secondly the obrasjes' buildings were protected by

(xxv) (continued) ...18. Tyrer’s estimate of 10,000 workers includes only tributary Indians, thus the percentage of encomienda and repartimiento Indians in this category is 35.9% if we exclude the Indians under 18 and over 40% if we take them into account. We have considered the community obrasjes as part of the public sector since a substantial part of the wages of the Indians was appropriated by the crown via tributes of up to 9 pesos, which was far higher than those of the rest of the Indians, and the office of administrator and maestro (cloth master) were reserved for Spaniards nominated by the crown as a reward for its protegés. The salaries of these officers ranged from 1,000-3,000 pesos p.a. for the administrator and 600-1,350 pesos for the maestro. Thus they were around 100 fold higher than the wage of a non-skilled worker which was, on average 18 pesos and 75 fold higher than the salary of a skilled Indian worker in the obraje which was about 27 pesos. (81)
barred windows and padlocked doors, and the existence in all of them of handcuffs, fetters and the like suggest, at the very least, that compulsive methods to recruit and retain the labour force were common. Finally the existence of debt-peonage and payment of wages predominantly in kind in leading obrajes, i.e. highly capitalised and productive ones, suggests that these methods of recruitment were also common among the more backward ones. (xxvi) (84)

Obraje production was, throughout the colonial period, in competition with non-American textile imports on the one hand and domestic and artisan production on the other. The European trade initially provided only high quality cloth which was consumed by the upper classes, although by the end of the colonial period cloth of medium and low quality was imported from Europe. Domestic and artisan production on the other hand supplied the needs of the poor in the countryside and the urban and mining centres. The obrajes managed to obtain a substantial share of the market for both types of cloth during the 16th and 17th centuries. However, by the 18th century, despite the expansion of the market, which reflected the demographic growth during the century and the increase in silver and gold production, a crisis occurred in the obrajes of Quito, Mexico and Peru. By 1790 the number of obrajes in these three centres had substantially decreased. (xxvii)

(xxvi) In the obraje of Pichuichuro mentioned above about half of the workers, 239 out of c.500, owed the enterprise on average the equivalent of a year's wages. In this and other obrajes payment in cash represented well under 50% of the total wage. (83)

(xxvii) For Quito, see Table 24. For Peru, Silva estimated the decrease in the number of obrajes as 50% during the period from the early 18th century to 1790. In Mexico the 12 obrajes of Acambaro that existed in 1780 had been reduced to 10 by 1793, the 5 obrajes existing in San Miguel in 1755 had been reduced to 1 in 1793 and the 32 in Queretaro in 1740 had been reduced to 17 in 1793. In the artisan sector a similar reduction occurred. (85)
The main reason for the decay of the Spanish American textile industry in the 18th century was the increasing capacity of Spain to supply its colonies with relatively cheap Spanish and European cloth and, to a lesser extent, the increasing incursion of foreign smugglers. The best proof of the destructive effects of the successful Spanish colonial trade on the Spanish American industry is the sudden but temporary, revival of the native industry during periods of suspension of trade with Spain. During 1796-1802 when Spain was virtually blockaded by the British Navy and Spanish exports to America were less than 15% of the exports of the previous decade, 1786-95, an industrial boom occurred in the Indies. In Queretaro, the number of obraje workers increased from 1,500 to 3,000 between 1793 and 1803 and in the artisan sector the increase was even higher. In the city of Oaxaca the number of looms increased from 500 to 800 between 1793 and 1796. Data for other Mexican regions and Peru and Upper Peru also suggest a substantial expansion of the textile industry. This expansion was, however, short lived since the restoration of peace and pre-war levels of Spanish exports resulted in a new textile industrial recession. (86)

C) Conclusion

Throughout the colonial period, Spaniards in the Indies searched for, found and exploited minerals which were required to pay for Spanish or European imports or to satisfy local or European demand. Miners were encouraged in this process by the crown which was interested in the taxes derived from mining production. This encouragement consisted of generous grants of repartimiento Indians for the miners and, in the last decades
of the colonial period, reductions in the prices of raw materials, technical aid, some loans and so on. From the outset Spanish interest was concentrated on precious metals and they formed the overwhelming majority of the value of mining production and constituted in value well over half of the total Spanish American exports to Spain. (xxviii)

Gold was, during the first half of the 16th century, the main precious metal produced in the Indies and, although it was displaced by silver in the 1560's, it continued to be an important source of revenue for the crown and the miners, and an important part of Spanish American exports for the rest of the colonial period. During the first decades after the conquest, gold was produced almost everywhere in the Indies with the incentive provided by a cheap Indian labour force whose use was hardly regulated by the crown. The relative exhaustion of gold placers and the decline of the Indian population by the end of the 16th century, resulted in the reduction of gold production to those areas in which it was really profitable (basically Colombia), and total Spanish American gold production fell drastically and only started growing again in the last decades of the 17th century. The decline of the Indian population also led to a gradual but constant change in the composition of the labour force. By 1600 black slaves had almost totally replaced the encomienda Indians in gold production and continued to provide a substantial part of the labour force. By the end of the colonial period, however, independent panners and waged labourers constituted the bulk of the labour force.

(xxviii) During 1561-60 precious metals constituted 83.2% of the total value of American exports to Spain while in the period 1784-92 they constituted 68.2%. (87)
During the 18th century and especially during its second half, gold production increased at a rapid rate. This was basically the result of an increase in the labour force available (both free and slave labour), the beginning of the exploitation of new areas of gold production and a substantial reduction in the tax applied to gold mining. Throughout the colonial period, gold production techniques were relatively simple, especially in placer mining, but the production of large amounts of gold required a substantial investment in black slaves or salaries, the provision of tools and foodstuffs and clothes for the labour force. This brought about an increasing dependence of the gold miners on merchant capital, which provided the loans necessary to start or continue production unless profits were large enough to permit capital accumulation.

Silver production in the Indies was concentrated in Mexico and Peru which together accounted for over 95% of the total colonial production. Within these territories, a few mining districts, Potosi, Zacatecas and Guanajuato, accounted for around half of the total Spanish American production during the period. Other colonies such as Chile, Colombia and Central America had a very modest silver output although their production, in terms of their regional economies, was far from negligible.

The movement of silver production coincided strictly with the division of the period into centuries. Thus the 16th and 18th centuries were periods of growth of silver production which were followed by periods of decline in the whole of the 17th century and the first two decades of the 19th century. During the first half of the 16th century this growth was the
result of the discovery of rich silver deposits. The substantial growth of production in the 1570's and 1580's was brought about, on the contrary, by a massive input of forced labour, technical innovation and capital investment in the district of Potosi, where production accounted for well over half the total Spanish American silver output in the late 16th century. Similarly the phase of contraction of silver production in 17th century Spanish America was a direct result of the performance of the mines of Potosi. They reduced their output to less than a third from 1591-600 to 1691-700 and this loss was not compensated for by other mining districts. During this period the progressive decrease of the silver content of the ore extracted in Potosi, together with the decrease of its repartimiento Indians caused the decline. During the course of the 18th century Mexico increased its silver production five fold and was largely responsible for the recovery of silver output in the Indies, although a slight recovery in Potosi and growth of production elsewhere also contributed to this recovery. During this century the factors affecting silver production were mainly an increase in the capital investment necessary to continue and increase production in the old districts, the discovery of some important new deposits and a relatively enlightened policy of the crown which reduced tax rates in Peru, reduced the price of mercury and other items used in silver mining in Mexico, and increased facilities to sell the silver to the crown.

Colonial silver miners used a combination of free and forced labour in their enterprises. In Mexico black slaves and repartimiento Indians were an important, if not the largest part of the labour force during the 16th century. From at least
the late 1590's their importance seems to have lessened and by the late 18th century these groups of workers had become insignificant. For Potosí the data available indicates a roughly equal proportion of repartimiento and free workers during the 17th and 18th centuries, while in the rest of the silver mining areas forced labour was insignificant by the late 18th century. Taking into account the relative size of the labour force and the production of each region within the Spanish American context it is safe to conclude that while forced labour predominated in the 16th century, during the 18th century free labour overwhelmingly predominated in silver mining. Obviously free labour does not necessarily constitute a capitalist relation of production which is also characterised by the dispossession of the direct labourers of their means of production and the existence of economic conditions which compel them to sell their labour power. These conditions were fully achieved in a few leading mining enterprises in Mexico. For the rest of the silver producing areas the existence of the partido and kajcheo systems, which permitted a high participation of the workers in the profits and little or no control of the productive process by the mine owners, does not permit us to speak about a 'pure' capitalist relation of production. Furthermore the participation of the mine workers of certain areas in the regional peasant economies suggests the possibility that these workers had access to means of production through kinship relations or in other ways. Despite these limitations it is in the silver mining sector where a trend towards capitalist relations of production can be discerned most clearly within the context of the colonial economy.
After a few decades of exploitation of superficial and rich silver deposits, silver mining depended to an increasing scale on capital investment and technological progress. The single most important technological development was the application and improvement of the amalgamation method which, through the use of mercury, permitted the exploitation of low grade ore. The use of cartridge blasting, the construction of tunnels and adits and the use of whims, pumps and other machines also improved the productivity of labour during the 17th and 18th centuries, when the average silver content of the ore extracted was constantly decreasing. The use of these techniques and machinery required the expenditure of a large amount of capital, the returns on which, if potentially large, were delayed for long periods.

Capital needed for the exploitation of silver mines came from different sectors. In some cases it came from the profits of mining itself, in the form of reinvestments of the profits reaped previously in the mine or in other mining ventures. In other cases capital came from money lenders or investors belonging to a variety of social sectors or economic activities and, in the last decades of the colonial period, the state. The most important source of capital for silver mining, was, however, merchant capital which provided the miners with loans in cash and, more often, in commodities for the operation of the mines; these loans had to be repaid in silver ore or bars. Through these advances merchants created a virtual chain of dependencies which included them at the top, local merchants operating in the mining camps, refiners, miners and, eventually, the workers themselves. This circuit of dependencies which
operated basically through the circulation of commodities, which were only measured in terms of money, was a reflection of both the lack of capital in the silver industry and a lack of coin in the economy. The grip of the merchants over the miners was weakened in the second half of the 18th century by two factors. Firstly by the expansion of the facilities provided by the state so that the miners could sell their silver bars and, sometimes, the ore, secondly, by the profitability of some mining enterprises which were able to provide their own finances and to finance other miners. In late 18th century Mexico, where these factors were much more in evidence and where the monopoly of trade and its high profits were seriously disrupted by fierce competition, merchant capital entered silver mining production in large amounts.

Minerals other than gold and silver had little economic value in the Indies apart from mercury and, to some extent, copper and tin. Production of the two latter in large quantities was basically a response to European demand, although some internal demand for them also existed. Mercury was, on the contrary, only produced to satisfy the internal demand generated by silver production. The only Spanish American mercury mine of any importance during the period was Huancavelica which was controlled and subsidised with repartimiento Indians by the state. Its production suffered phases of expansion and contraction due to the decrease of the mercury content of the ore extracted and technological improvements. By the 1780's the mine was virtually exhausted. It only remained in operation due to the preferential prices it obtained under the crown's mercury monopoly and the need on the part of the crown to have a secure, if expensive, source of mercury in the Americas.
During the colonial period industry constituted a very small part of the value of Spanish American commodity production. This was the effect of the existence of widespread domestic production among the poor and the competition of European luxury items. Despite this the industrial sector managed to obtain a share of the market or to create its own through state commercial monopolies in certain cases, cheapness of raw materials, super-exploitation of the labour force and, at least in the case of textiles, technical development. Textile production was by far the most dynamic sector of colonial industry and it constituted a large part of the industrial output, employed large numbers of workers and, in large productive units, reached a relatively high division of labour. This relative textile industrial development, continually hampered by European competition, received a virtual coup de grace in the course of the late 18th century, when the combination of a more liberal Spanish commercial policy, expansion of foreign contraband and the European industrial revolution, at least partially put out of business the more technically advanced Spanish American textile mills. Finally, although data on labour systems are fragmentary, they indicate the predominance of the use of different types of forced labour in the large mills throughout the colonial period.
PART III: THE IDEOLOGICAL STRUCTURE
The church was an efficacious instrument of the expansion and consolidation of the Spanish empire throughout the colonial period. During the 16th century, its expansion closely followed Spanish military expansion in America, consolidating the destruction of the social and economic structures which had been begun by the Spanish armies. It did this by destroying the prehispanic system of values and beliefs, along with their material embodiments such as the hierarchy of native priests and temples. At the same time all the Spanish ecclesiastical institutions were transferred to America slightly modified for American conditions and increasingly controlled by the royal bureaucracy. However, the church was not a mere instrument of the crown, docile to alien interests. In the main, the interests of crown and church coincided. The expansion of the faith and, consequently, the extension of the church's ideological, political and economic power was only possible with the economic and military assistance of the Christian princes. On the other hand, the legitimisation of a situation of conquest and exploitation of new territories by the Spanish crown vis-à-vis the other European powers and the aborigines themselves needed the consent and active participation of the church. Hence the crusading character of the early conquest, the frontier nature of the more flourishing missionary posts of the 17th and 18th century which were aimed at stopping the Portuguese, Dutch and English incursions, and the crown's heavy subsidies to the missions. This basic coincidence of interests did not prevent clashes between sectors of the American church and the royal bureaucracy both at a local and imperial level, nor did it prevent clashes within each body or with sections of civil
The initial dependence of the conquistadores on the crown and their loyalty to the church developed into a variety of conflicts, which church and royal bureaucracy alike had to cope with by adapting their principles, with differing degrees of compromise, to the interests of the colonists. The aborigines, on their part, after an initial armed resistance adopted an attitude of passive resistance with recourse to sporadic rebellions. Again the military power of the crown and the ideological strength of the church joined forces to restore peace and conformity with the economic, political and ideological norms and values that Spanish colonial society was imposing on the Indies.

Within the church contradictions arose over several different issues. As far as social policy was concerned there was conflict over the treatment of the Indians, doctrinal differences arose over the conversion of the Indians and the best means of achieving it. Economic resources also produced conflicting interests, particularly the tithe and the wealth of the church. There was also disagreement about the degree of autonomy that the church should enjoy in relation to the crown. None of these issues can be understood separately since they form an intertwined complex of interests. The diversity of the development of these contradictions in different areas at different stages of the process of colonisation compel us to undertake a topical rather than a regional approach. The latter, while permitting a concrete analysis of specific social formations would, at the same time, prevent us from obtaining a clear view of the development of these contradictions throughout the Spanish American empire.
Nevertheless, an effort will be made to specify regional social and economic conditions and practices so as to explain differences in the development of these contradictions in each area. Emphasis will be put on the nuclear zones, central Mexico and Peru, because of their economic and political importance and we will initially concentrate on them. However, other areas of specific relevance will also be analysed in the treatment of each topic.

We begin this section by looking at the ideologico-political conjuncture in Spain and outlining the important ideological debates which took place within the church and influenced crown legislation in Spanish America. We then examine the foundation of the church in America, distinguishing between the regular and secular clergy and the establishment of the church hierarchy which occurred at different times in different parts of the empire. The next three chapters are concerned with the economic, political and ideological functions, in that order, of the church in Spanish America, and we finally analyse the Indian response to Spanish domination and discuss the different forms that the class struggle took in opposition to the imposition of Christianity and the destruction of the indigenous social formations.
Chapter 7: The ideological conjuncture in 16th century Spain

In this chapter we present an analysis of the politico-ideological conjuncture in Spain in the first half of the 16th century. We concentrate specifically on the impact of the effects of the conquest on church ideology and its relation to the formation of the juridical base which directed the conquest and early colonisation of the Indies. We will show the relation between religious ideology and the legislation governing the process of colonisation and explore the effects of the conquest on religious thought.

An analysis of the relation of the church to the crown is particularly important in this context as it reveals the extent to which religious apparatuses and ideology affected the conduct of the conquest and the subsequent colonisation process.

We will concentrate initially on the part played by the church, in particular the pope, in sanctioning the crown's conquests, and then look in some detail at the ideological debates that took place in Spain during the early stages of colonisation. We will look particularly closely at debates concerning the nature of the power to be exercised by the conquistadores over the indigenous population. The ideological debates were initiated by the actual conditions pertaining in Spanish America and, in turn, had important juridical and practical effects.

From the beginning of the Age of Discovery the church played an important role in legitimising the expansionist policies of the Iberian kings. Papal bulls in 1452, 1455 and 1456 granted the Portuguese kings exclusive rights over the
newly discovered territories of Madeira, the Azores and the western coast of Africa and authorised them to attack, conquer, subdue, expropriate and enslave saracens, pagans and other unbelievers. In a similar way the Catholic kings of Spain were quick to ask the pope for a recognition of their rights over the newly discovered lands in America. In the bull Inter Caetera of May 3, 1493, Alexander VI recognised the Spanish kings' exclusive rights over these lands. It went further than the bulls of concession to the Portuguese, which did not provide concrete measures for the conversion of the aborigines, and commanded that: '... in virtue of holy obedience ... appoint to the aforesaid countries and islands worthy and God-fearing, learned, skilled, and experienced men to instruct the aforesaid inhabitants and residents in the Catholic faith, and to train them in good morals'. (1)

Although the authority of the pope in temporal affairs was by no means universally acknowledged among jurists and theologians, papal political influence in the Iberian peninsula had been important since the 13th century when the Iberian kings, having expelled the Moslems from most of the peninsula, aimed to conquer the territories occupied by the Moslems in the north of Africa. The Portuguese, Castilian and Aragonese kings looked for and obtained papal moral and economic support for their enterprises. Such support took the form of the concession of indulgences to the participants and the right to collect special levies to finance the expeditions. The disputes among the kings over the legitimacy of the rights of each to the territories made the pope into a virtual arbitrator of their expansionist disputes until the 16th century. (2)

This role was particularly important in relation to the
Canary Islands. In contrast with other unpopulated islands colonised by the Portuguese, such as the Azores and Madeira, and with the Moslem kingdoms of northern Africa they were inhabited by a pagan aboriginal population. In 1344 they were granted to Castile by papal bull. However Castilian dominion over the island was largely nominal since Majorcans and Catalonians under the Aragonese crown were the most active merchants and missionaries in the Archipelago; this situation pertained until Bethencourt, a Norman knight, took possession of some of the isles in the name of the Castilian king at the beginning of the 15th century. The constant aggression of Bethencourt against the aboriginal population made the pope withdraw the spiritual and economic concessions that he had previously granted. (3) In the early 1430's reports from the Bishop of the Canaries denouncing Portuguese raids against Christian converts made the pope ban further European expansion in the isles. However the same pope in 1436, at the request of the Portuguese king, lifted the ban in order to allow the Portuguese to begin the conversion of the infidels. This competition for power in the islands and the subsequent fights between the Spanish and Portuguese came to an end with the treaty of Alcajubas (1479) between the two crowns. Through it the Portuguese renounced the Canaries while the Spaniards recognised Portuguese 'possession or quasi-possession in all trade lands and barter in Guinea ... the islands of the Azores, Madeira ... Cape Verde, or in all islands hitherto discovered or to be discovered ... from the Canary Islands down toward Guinea.' Two years later the treaty was confirmed in a papal bull. (4)

In relation to the American territories too, the Spanish
crown looked not only for papal concessions, which were granted in several bulls in 1493, but also for recognition of their rights by the Portuguese. This recognition was attained in the treaty of Tordesillas (1494) which divided the colonial influence of both crowns in the New World by means of a '... straight line ... drawn ... from pole to pole ... at a distance of three hundred and seventy leagues west of the Cape Verde islands', the western part of it belonged to the kings of Castile and the rest to the Portuguese. This meant that a major part of America came under Spanish dominion although some American territories such as the eastern part of present Brazil, fell into the Portuguese area. (i)

The rights of the kings of Spain over the Indies were thus established on three grounds: discovery and occupation of these territories, papal concessions and the Spanish-Portuguese treaty. The title of dominion over the Indies which was defended most consistently by the crown, royal jurists and theologians, these latter with radical modifications as we shall see later, was however, the papal concession. This was the only one of the three which was compatible with Spanish medieval law ('Las partidas') and was argued without contestation during the first two decades of colonisation. Thereafter it was alleged to be the main title to the Indies

(i) This was in contradiction with the papal concessions made to the Spaniards in the bull Inter-Caetera of 4th May 1493, which granted Spain all territories beyond 100 leagues and not 370 leagues as worded in the Treaty of Tordesillas. Accordingly the Portuguese king asked the pope to confirm the Treaty, thus annulling the previous concession of 1493. This was carried out in the bull Ea Quae of 1506. (6)
and was incorporated into the Indian code of 1680; the 'Recopilacion de las Leyes de Indias'. (6)

By the end of the 15th century opinion with respect to the temporal power of the pope was divided. Theologians close to Rome following St. Augustine and the precedent of practical interventions by popes such as Gregory VII and Innocent IV in temporal affairs, defended the theocratic theory of the universal power of the pope in temporal and spiritual affairs over princes, whether they were Christian or not. Other theologians followed the regalist tendencies of the French and German princes during the 14th and 15th centuries, denying the temporal power of the pope and subjecting both church and pope to the control of the prince. Finally a third theological doctrine, following Thomas Aquinas established a balance between the two. For Aquinas the power of the pope and the powers of the princes corresponded to two different spheres. The temporal power of the princes derived from human right while the divine or spiritual right of the popes came from Grace; neither of them negated (tollit) the other. Therefore the power of the infidel princes was seen as legitimate as was infidels' property of which they could not be deprived. Nevertheless, the church and its head, the pope, could intervene in temporal affairs to protect the faith and its right to propagate it, that is to further a spiritual end. (7)

At the Spanish court the theocratic theory had wide currency among jurists while among Spanish theologians at the beginning of the 16th century the theocratic theory and elements of Aquinas' doctrine coexisted in a confused system of ideas. Thus the right of Spain over the Indies, which was legitimised through papal donation, was not challenged during the first
decades of colonisation. Later, however, the denunciation of the 'cruel and horrible servitude' of the Indians of the Antilles, which became known in Spain from 1511-12, provoked a debate about the justice of the titles of Spain over the Indies and later produced drastic changes in royal legislation. (8)

The earliest and most spectacular of these denunciations was the sermons of the Dominican friar Antonio de Montesinos, who, in agreement with his fellow Dominican friars in Hispaniola, condemned the harsh exploitation of the Taino Indians by the Spaniards. The latter, according to the Dominicans, were only interested in the acquisition of gold and not in the instruction of the Indians in the Christian faith. The Indians had rational souls and deserved this instruction. The war against these pacific Indians and their subsequent cruel and horrible servitude was unjust.

The scandal provoked by the sermon among Spanish encomenderos and the support given to Montesinos by the Dominican province of Hispaniola resulted in the intervention of the king. The Dominicans and the encomenderos sent emissaries to Spain, the former sent Montesinos himself and the encomenderos sent a Franciscan friar. Montesinos' account of the cruelty of the treatment of the Indians by the Spaniards impressed the king who summoned a group of theologians and officials to debate the issue and draw up protective legislation for the Indians. Legislation was finally promulgated in 1512 in Burgos and is known as the Laws of Burgos. (9)

By this time Hispaniola had become the administrative and economic centre of the Spanish colonising enterprise in America and other recent settlements included Cuba, Puerto Rico, Jamaica
and, on the mainland, Castilla del Oro (Panama). Admiral Columbus, in the absence of spices and the scarcity of gold to barter with the Indians of the Antilles, had already begun the Indian slave trade in 1495. However, the trade was soon stopped and was forbidden by the crown in 1501, with the exception of the warlike Caribs, and Indians were declared 'free subjects of the crown.' (10) In the meantime the Spanish settlers imposed on the Indians the heavy duties of providing them with food and working the gold mines. This semi-informal but effective system of exploitation was rationalised by the introduction of the Castilian encomienda by the new governor, friar Nicolas de Ovando, and confirmed by royal cedula (order) in 1503. The cedula, although recognising that the Indians were 'free and not servile', commanded the use of forced Indian labour by the Spaniards in building, mining and agriculture, to be paid at the rate decided by the governor. (11) This system of exploitation had two important effects for the Spanish crown and the Hispaniola settlement. On the one hand there was an enormous increase in the amount of gold shipped to Spain (ii) and, on the other hand, there was an impressive demographic decline in the Indian population from at least 500,000 in 1492 to some 30,000 in 1514; this was despite the constant importation of slaves from the lesser Antilles. (12)

The Laws of Burgos, already referred to, did little more than sanction the current practices of exploitation of forced Indian labour. They commanded the Indians to mine gold five months per year and to be concentrated in villages near the

(ii) See chapter 6 above.
encomenderos. The latter were charged with several religious duties such as the construction of churches, religious indoctrination and baptism of children. The laws provided also for better treatment of the Indians, they forbade the beating of Indians with whips or clubs, pregnant women were no longer allowed to work in the mines, encomenderos had to provide Indians with hammocks and clothes and royal inspectors were appointed to enforce this legislation. (13) This sanctioning of the status quo in the Indies with nominal changes did not satisfy the 'provincial' of the Dominicans in Hispaniola who lobbied the king and obtained further changes which were approved in 1513. Under this legislation Indians only had to serve the encomenderos for nine months per year, married women were not compelled to work, neither were children under 14 except on certain jobs.

Even though the actual situation of the Indians in the Antilles changed little after this legislation, the ideological effects of the discussions were not negligible. The only two known opinions expressed in writing on this matter and presented at the discussions in Burgos were that of the Dominican friar and professor of theology at Salamanca, Matias Paz, and that of Juan Lopez de Palacios Rubios, the most prominent jurist of his time. In their view the right of Spain over the Indians rested on the 'papal donation, the Indians must be required to come to the faith and those who use them as slaves or otherwise mistreat them must make due restitution.' These opinions fell short of the more radical Indigenist theories to be elaborated later by Las Casas, Vitoria and de Soto, however in their sympathy and interest for the welfare of the Indians they paved the way for more progressive Indigenist
The Dominicans' efforts only resulted in the legislation of 1512-13 and the issuing of the requirement. This was a document to be read to the Indians by the conquistadores requiring them to accept peacefully the rule of the kings of Spain before attack and did not satisfy the Dominicans. Accordingly they sent friar Montesinos and the clergyman Bartolome de las Casas to lobby King Ferdinand and, after his death, the regent Cardinal Ximenez de Cisneros. In Spain Las Casas presented Cisneros with a radical proposal which included the suppression of the Indian forced labour and its replacement by communities formed by a Spanish peasant family and five Indian families who would cultivate land together, a total removal of the functionaries of the Indies, the nomination of honest judges, the selection of a well-instructed clergy to be sent to the Indies and the publication and diffusion in the Indies of the treaties of Matias Paz and Palacios Rubios. Cisneros accepted the plan but subjected it to a thorough investigation to be carried out by Jeronymite monks with full administrative powers and independence from the Dominicans and Las Casas. The latter was nominated 'protector to the Indians' with no powers and only the duty of advising the priests and informing the crown. The inquiry sought to determine whether the Indians were capable of living in freedom while at the same time paying tributes to the king. Since all the people consulted (except for a few ecclesiastics, who were favourable to the Indians) were old colonisers their opinion was unanimously against Indian freedom. Accordingly the friars in two years of administration (1516-18) only liberated one Indian from
Apart from the suppression of the encomiendas belonging to absentee holders no major changes occurred and the main result of the friars' administration was a list of recommendations to the crown. These recommendations included increased immigration of new settlers, particularly married farmers, a decrease in the number of Indians per encomendero, no more changes in the status of the Indians, the importation of negro slaves and investment of clerics with more authority. (17)

The debate on the status of the Indians continued during the following years and practical experiments to test the capacity of the Indians to live as free subjects of the king, that is not subjected to forced labour, living according to Christian laws and paying tribute to the king, were set up in Hispaniola in 1519 and in Cuba in the early 1530's. The experiments which were ordered by the crown, were opposed by the encomenderos and only reluctantly accepted by the colonial officials, therefore their failure was not surprising. Despite these experiments and the feeble attempts of the crown to prevent the granting of encomiendas of Indians to the conquistadores in Mexico, together with the laws of New Discoveries and Good treatment of Indians of 1526, the legal status of American Indians remained the same up until the promulgation of the New Laws in 1542. This was the second major attempt on the part of the crown to check the power of the encomenderos in the Indies and to cope with the demands of the Indigenest party. (18)

Besides the pressures of the Indigenist party and a
favourable economic conjuncture in the Indies promulgation of the New Laws was also helped by important changes in the theoretical evaluation of the rationality of the Indians, this was a key issue in the argument against or pro encomienda, and the justice of the titles of Spain to rule America in the second half of the 1530's. We will now look at this debate in some detail.

The Spaniards' concept of the American Indian during the first half of the 16th century varied from the 'noble Indian' conception: 'Simple people without art and without guile ... obedient, ... faithful ... peaceful and virtuous surely these people would be the most blessed in the world if only they worshipped the true god' (Las Casas), to the 'dirty dog' conception: 'Naturally lazy and vicious ... idolatrous libidinous ... /they\ commit sodomy ... and ... bestial obscenities ...', Fernandez de Arviedo, official historian. (20)

To be sure the noble Indian image had begun with the discovery itself since the pope in the bull Inter Caetera (May 3, 1493) declared that they had been informed that '\[Indians\] ... seem sufficiently disposed to embrace the Catholic faith and be trained in good morals'. During the next few years, though, early Spanish chroniclers in America, of which Orviedo is only one example, described the social customs and rites of the Indians in terms of vices, infernal practices, crimes against

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(iii) Chaunu, without ignoring the importance of parties and clans (can we say classes?) in charge of the administration in the formation of state policy, has suggested a correlation between the crown's concession to the Indigenist party and periods of growth in the revenues coming from the Indies. Thus the legislation of 1512-13 would have been permitted by the constant growth of revenues ending in the intercyclical recession of 1516-25, and the New Laws by the growth of the period ending with the recession of 1549-62. (19)
In 1517, at the request of Las Casas, a group of theologians of the University of Salamanca decided that the opinion that Indians were incapable of receiving the Christian faith was heretical and that whoever persisted in that opinion deserved the stake. However this more or less official statement did not eliminate the colonial perception of the Indians as being incapable of receiving the Christian faith, and during the 1530's friars, prelates, officials and theologians felt it necessary to state the capacity and willingness of the Indians to receive the faith officially, either in lectures or in letters to the pope. (22)

In 1537 Pope Paul III, after being lobbied by a Dominican missionary, Bernadino de Minaya issued the bull Sublimus Deus, in which he declared: '... Indians are truly men and that they are not only capable of understanding the Catholic faith but, according to our information, they desire exceedingly to receive it ... We ... declare that ... the said Indians and all other people who may later be discovered by Christians, are by no means to be deprived of their liberty or the possession of their property, even though they be outside the faith of Jesus Christ; and that they may and should, freely and legitimately, enjoy their liberty and the possession of their property; nor should they be in any way enslaved.' (23)

Shortly before this Paul III had issued bulls and briefs punishing the enslavement of the Indians and the plunder of their property with heavy ecclesiastical penalties. The Spanish crown considered the bulls and briefs an interference in Spanish affairs and demanded the abolition of 'Sublimus
Deus' and the previous bulls and briefs. Paul III revoked the briefs which provided for the enforcement of the doctrine in America but maintained the validity of 'Sublimus Deus'. However the crown considered it abolished and forbade the circulation of the copies eagerly sent to America by Las Casas and Minaya. In this way King Charles I maintained control over the church in America without interference from Rome and, probably without intending to, eliminated an effective weapon against slave raids. (24)

The pro-Indian activities of the Dominican friars such as Montesinos, Las Casas and Minaya, were soon reflected at the theoretical level in the writings of the major Spanish theologians of the 16th century. The doctrine of Thomas Aquinas, himself a Dominican, was supported and developed mainly by Dominican theologians during the 14th century, but had scarce currency during the 15th century. In the 16th century however, Aquinas' doctrine met with a revival after the denunciations of the atrocities of the Spanish conquistadores and colonisers in America. This revival was preceded by the writings of Tomas Vio Cayetano who was father general of the Dominican order (1508-18) and very influential among Spanish theologians. As General of his order he was probably acquainted with Montesinos' denunciation. Nevertheless, in his writings he did not refer to the situation in the Indies but limited himself to delimiting the rights of the pope to interfere in temporal affairs. As in Aquinas being an infidel does not deprive man of his natural rights, therefore the dominion and property of infidels should be preserved. They should not be compelled to accept the Christian faith and war against them is just only when they impede the propagation of the faith or when they have encroached
on former Christian territories. (25) Similar arguments were put forward by other notable religious figures such as the Dominicans of the convent of San Pablo of Valladolid and archbishop Garcia Loayza. (iv)

However, it was only in the 1530's that these ideas were accepted and developed by the more outstanding Spanish theologians. Through them they gained currency in the major Spanish universities, Salamanca and Alcala, thus reaching the future missionaries and prelates of the Indies. The open rejection of papal temporal powers, and therefore the granting of responsibility for the Indies to the kings of Spain, by these theologians was considered so damaging to the interests of the crown that the king ordered the Prior of the convent of San Esteban, where leading theologians of Salamanca University resided, to forbid debate on the Spanish titles over the Indies and confiscated the friars' writings on the subject. (26)

The two leading exponents of the Indigenist case were La Vitoria and Las Casas. The former was a leading figure during the 1530's and '40's and his influence extended beyond the 16th century. The latter, mentioned above, was formerly a missionary and therefore had direct experience of conditions in the Indies and actively lobbied for improvements in the conditions of the Indians.

(iv) The Dominicans of the convent of San Pablo of Valladolid voiced these opinions in the juridico-theological meeting of 1513. According to the friars (and contrary to the opinion of Matias Paz outstanding theologian at the time and also a Dominican) the property and political organisation of the Indians derived from Natural Right (Jure Gentium) and was inalienable—in this way they were implicitly denying the temporal power of the pope. Also archbishop Garcia Loayza (O.P. and president of the Council of the Indies) argued along these lines to prevent the concession of licenses for new conquests in the Indies in 1525.
Both men sought to delimit the rights and duties of the Spaniards in relation to the native population. Although they shared the crown's and settlers' objective of converting the Indians to Christianity, they had differences with the way that this conversion was currently being carried out and the way the Indians were being treated. Thus both men were concerned to define the rights and duties of the Spaniards in order to extend the Christian church and to prevent maltreatment of the Indians. Thus, for Vitoria, wars against the Indians were only justified if the Indians prevented them from settling and trading or prevented them from preaching the gospel. They could also fight to protect the beliefs of the Indians who had already been converted to Christianity. In this way he defined the circumstances in which aggression against the Indians was permissible. Both men also sought to demarcate the spheres of influence of church and crown in spiritual and temporal affairs, and to specify the relation that ought to obtain between the two.

As the 'leader of an active minority' Las Casas knew how to lobby and argue before the king and the Council of the Indies in order to obtain concessions to protect the Indians. The most important of these concessions was undoubtedly the promulgation of the New Laws in 1542. One of Las Casas' treatises, 'Very Brief Account of the Destruction of the Indies' can be considered a summary of his denunciations before the Council and the king. In it, after paying tribute to the 'Noble Indian' image he condemned the atrocities committed by

(v) Their main arguments can be found in detail in Appendix 7.
the Spanish conquistadores - recounted by him in terms of genocide - which had resulted in the depopulation of the Indies. Here his purpose was probably to move the conscience of the crown by depicting a horrifying picture of the Spanish conquest.

In another contemporary treatise written to forward his cause, 'Remedies for the existing evils with 20 reasons therefor', he moved from moral denunciation to more rigorous legal argument and, even more importantly, to concrete political solutions to the problem presented. Out of 20 remedies he only published the eighth which he considered the 'most important and substantial, because without it, the rest would be useless'; this was in 1552. (vi)

It is difficult to ascertain the impact of the various arguments on the king and his advisers, however it is necessary to point out the coincidence of interests between the Indigenist party and the crown on at least two crucial points.

Firstly, they both recognised that the privileges of the encomenderos represented a threat to royal dominion over the Indies. Thus the opinions of the royal advisers, after the violent colonial reaction against the New Laws, were against granting encomiendas with civil or criminal jurisdiction over the Indians in perpetuity. This would represent in their view, a restriction of royal power and it would encourage the development of seigneurial power. Las Casas, in his eighth remedy (see Appendix 7) pointed to the same problem, furthermore he continued during the 1540's and 1550's to use this argument to influence the Spanish rulers against the encomienda. (28)

(vi) See Appendix 7 for Las Casas' eighth remedy.
Secondly, the crown had been aware from the beginning of the 16th century of the demographic decline of the Indians and the importance of the Indian labour force for royal revenues from the Indies. Charles I must have been aware of this fact since it was during his reign that the epidemics of 1518 provided the death blow to the gold economy of Hispaniola. Accordingly the legislation of 1542 was aimed principally at stopping the destruction of the Indies, i.e. the Indian labour force: this had been Las Casas' and the Indigenists' leitmotif since 1511. (29)

The encomenderos' violent opposition to the enforcement of the New Laws resulted in the abolition of their most radical measures which dealt with the virtual abolition of encomiendas in 1545-6. Others, however remained in force, such as those dealing with the suppression of forced Indian labour, the banning of slave raids, and good treatment of the Indians. In this way the crown reached a compromise between the interests of the Indigenists, which coincided with their own, and the interests of the encomenderos in the Indies. (30)

Neither the colonists nor the Indigenists found the compromise satisfactory. Both continued to claim jurisdiction over the Indians during the whole colonial period. The colonists wanted to use them as cheap or free labour while the Indigenists wanted them as neophites to be kept away from Spaniards and under church control. (vii) However, from the

(vii) As Hanke has suggested there is a continuity between the thought and action of Las Casas and some of the missionary efforts of the religious orders, particularly the Guaraní missions of the Jesuits and the borderland missions of the north of Mexico in the 18th century. Las Casas' plan for the evangelisation of the Vera Paz (Guatemala) included the ban on all Spaniards, other than missionaries, from entering the mission lands during the first 5 years of evangelisation. (31)
second half of the 16th century onwards this dispute took place mainly on American soil, having as its main protagonists the local bureaucrats, the American church, and the encomenderos and Indians themselves. Probably the last important attempt of the crown to decide on a general policy on the Indian problem, once the problem of the encomienda had reached a reasonable compromise, was the debate over the justice of waging war against Indians in 1550-51. (32)

In 1549, under pressure from the Indianists, the Council of the Indies had advised the king to stop conquest expeditions which did not have express royal approval, and recommended him to consult a meeting of theologians and jurists to decide how future conquests in the Indies should be conducted. Charles I approved the idea of the meeting and in 1550 ordered all conquest expeditions to be stopped until the theologians and jurists had decided how to conduct them justly. (33) In fact the debate had informally started a few years earlier when the authoritative humanist scholar Juan Gines de Sepulveda had written his 'Democrates Alter' or 'About the just wars against the Indians' under the sponsorship of Archbishop Loaysa, who was president of the Council of the Indies and an opponent of the New Laws. In this work Sepulveda applied the Aristotelian doctrine of natural slavery to the American Indians. It was circulated at court but then the Council of the Indies and later the authorities of the Universities of Salamanca and Alcala, responding to the protests of Las Casas, banned its printing. (34)

As Las Casas and Sepulveda were both reputed authorities on theological and Indian affairs it was only natural that they presented their points of view to the theological meeting of 1550-51. Sepulveda's views, which can be considered a
rationalisation of the colonists' view of the Indians, can be summarised as follows. (viii)

Sepulveda justified wars being waged against the Indians for two reasons. Firstly that the Indians had barbarous customs such as cannibalism, they lacked written laws and private property, they were cowards and they were inherently rude. Thus, according to the philosophers they were natural slaves. The Spaniards had the right to rule over barbarians because of their superiority, 'prudence, genius, magnanimity, temperance, humanity and religion'. Secondly, the Spaniards had brought innumerable benefits to the American Indians, such as the introduction of cereals and vegetables, livestock, iron, culture, excellent laws and the invaluable benefit of the Christian religion. All this outweighed the damages of wars since, according to St. Augustine, 'it is a greater ill that one single soul should perish without baptism, than that innumerable innocents should be killed.' (37)

In referring to the problem of how to wage war against Indians he condemned those that were waged to obtain booty and conducted with cruelty. The Indians should be invited to submit to the rule of the Spanish king and accept his law and religion. If they did not accept such an invitation, waging war against them was just and Indians should be punished with enslavement and their goods confiscated. (ix) (38) Those Indians who accepted Spanish rule without resistance could not

(viii) Not without reason the City Council of Mexico City, which was the representative of the colonists, and the richest in Spanish America, voted in 1554 to buy presents for 200 pesos for Sepulveda as a recognition of what he had done on its behalf and to 'encourage him in the future'. (35)

(ix) These measures were similar to the inoperative requirement of 1513.
be equal in status to the Spaniards because they were barbarians. For them a seigneurial but paternal rule, without abuses, unsupportable labours or unjust slavery seemed appropriate. (39)

The decisions of the theologians and jurists who were to judge Sepulveda's and Las Casas' points of view are unknown. But the royal instructions of 1556 for new discoveries and settlements, and the general order made by the President of the Council of the Indies, Juan de Ovando, in 1573, reveal a spirit of compromise between Las Casas' extremism and Sepulveda's paternal colonialism. They recommended friendly persuasion in the conversion of the Indians, exemption from the payment of tributes for some time and other privileges. However they prescribed the use of force if they refused Spanish settlement and preaching of the faith, after having consulted the local Audiencia which would decide in the last instance. (40)

Thus the incorporation of the Indians to the Spanish crown from the 1550's onwards rested exclusively in the hands of the local bureaucrats, colonists, missionaries and prelates and on their own capacity for negotiation or self defence. The doctrine of Las Casas, who directed his attack against the post-conquest forms of exploitation, slavery and encomienda, as well as against the methods of conquest and forced conversion, continued to have influence among a handful of missionaries and prelates whose impact on the class struggle will be assessed in the following chapters.

The thought of Vitoria which was more abstract and hesitant, it did not say a word about the encomiendas and other
forms of exploitation (x), predominated among Spanish theolo-

gians with just a few dissident voices. In legal terms many of

his principles were accepted by the royal legislation (1556,

1573) and in the Indies many of his disciples had the oppor-
tunity to check these principles against the realities of the

Spanish conquest. The point of view of Sepulveda had little

open support in Spain, his 'Democrates Alter' remained un-
published in the Spanish empire until the end of the 19th

century. However his thesis of the natural slavery of the

Indians as developed by other authors reached the press during

the colonial period both in the Indies and Spain. (43)

In the following chapters we will show how the principles
deriving from Vitoria, Las Casas and Sepulveda's thought, so far
analysed in relation to royal legislation, which was not always
enforced in the Indies, affected the concrete policy of the
American church towards the Indians.

(x) His position on these could be deduced, however, from the
thought of Domingo de Soto, his pupil, who follows the same
principles and arrives at the same conclusions as Vitoria.
Soto distinguishes two types of serfdom, natural and legal.
He rejects the first, which Sepulveda accepted, while in legal
serfdom he distinguishes between slavery, which he rejects, and
serfdom proper which he accepts. This serfdom was not incom-
patible with personal freedom and the possession of property. (41)
The separation of this doctrine from Las Casas' is apparent.
The Spanish theologians aimed at equating the legal situation
of the Indians with those of 16th century European peasants,
without realising the demographic and cultural consequences of
this mechanical transference of a legal situation which was bearable in Europe, but would have disastrous consequences for
the American Indians. The practical struggles of Las Casas,
then should be separated from the academicism of the Spanish
theologians who legitimised Spanish conquest and its less tragic
consequences as a means of Christian expansion. (42)
Chapter 8: Foundation and expansion of the church in America

In this chapter we are going to analyse the foundation and expansion of the church in America. We will look at the relation between legislation passed in Spain and the work of the early missionaries and then go on to describe the establishment of the church in the core areas of Mexico and Peru. While concentrating mainly on the initial stages of this process, which was carried out in the main by the religious orders, we will also describe the foundation of the church hierarchy which eventually took over from them. We will then go on to discuss the significance of the missionaries' work in the peripheral areas where they continued to be important until much later in the colonisation process. We will attempt to characterise the role of the religious orders in establishing the hegemony of Christianity and therefore the Spanish crown in America, and its importance in substituting Christian ideologies and practices for those existing prior to the arrival of the Spaniards; this was, it will be argued, crucial to the success of the process of colonisation for the Spaniards.

As we have seen in the previous chapter, the Bull Inter Caetera of 3rd May 1493, commanded the Catholic kings to appoint pious and learned men to convert the aborigines in the newly discovered territories and to train them in good morals. Thus, four weeks after the proclamation of the Bull and in accordance with its instructions, the kings ordered Columbus to attract the aborigines to the Catholic faith and nominated a learned friar, Bernado Boyl, to collaborate in the evangelisation of the Indians. Later, when the second expedition to America departed in September 1493, it carried to the Indies
Friar Boyl and five other friars. (1)

Despite this auspicious beginning and the sending of more friars, particularly Franciscans, to the Antilles little was achieved with regard to the conversion of the natives during the first twenty years of colonisation, apart from mass administration of baptism which was not followed by religious indoctrination. The arrival of the Dominicans in 1509 brought about a radical change. Alongside their concern for the social conditions of the Indians they seem to have engaged in a serious religious conversion of the natives. Furthermore, the discussion of the just titles of Spain over the Indies began with the Dominican's denunciation of the situation in the colonies and emphasised the duties of the Spaniards, both secular and ecclesiastical, towards the conversion of the Indians. It is not a coincidence then, that the Laws of Burgos, which grew out of these denunciations, stressed the duties of the encomenderos as well as the protection of the Indians. (2)

Both the discussion of the just titles and the recognition of the colonial role of the missions created a growing concern on the part of the crown to increase the number of missionaries crossing to the Indies. However, the reluctance of the orders to let them go impeded a mass emigration of friars until the late 1540's and early 1550's.

From the 1550's onwards a continuous flow of religious departed for the Indies and two mendicant orders were

(1) Between 1553 and 1598, 5,000 religious, duly licensed and equipped by the Council of the Indies, crossed the Atlantic. This total was made up of 2,200 Franciscans, 1,670 Dominicans, 370 Jesuits, 470 Augustinians, 300 Mercedarians and 50 Carmelites. Thus, during this period an average of 110 religious per annum crossed the Atlantic; estimations for the 17th and 18th centuries give us an average of 100 and 130 per annum respectively. This indicates that some 2-5% of European emigration to America in the 16th century was made up of regulars since the total estimated emigration to 1580 was of some 200,000 people with an average of 2,000 per annum. (3)
particularly significant in this process. From their foundation in the 13th century the orders of St. Francis and St. Dominic had been active in spreading the Christian faith among infidels. (ii) Franciscans and Dominicans were, therefore, the natural choice for the needs of evangelisation in the Indies, and in 1508 Ferdinand V was asking the general chapter of the Franciscans to send well trained friars to the Indies to join those already working there. The Franciscans were soon followed by communities of Dominicans (1509), Mercedarians (1514) and Augustinians (1533). No more religious orders were allowed into the New World by the crown until 1566 when the Council of the Indies gave licence to the Company of Jesus to send missionaries to America. These five religious orders plus the secular clergy were responsible for the evangelisation of the Indians from the 16th century onwards. Other religious orders of later arrival, with the exception of the Capuchin missionaries who were active in Venezuela from the second half of the 17th century, did not contribute directly to the missionary work in Spanish America and were limited to the cloisters or to charity work. (5)

During the first two decades of Spanish presence in the Indies all the major Antilles, that is Hispaniola, Cuba, Puerto Rico and Jamaica, were occupied and settled by the Spaniards. These settlements, especially Hispaniola which was the administrative centre of the area, served as centres for expeditions

(ii) During the 13th and 14th centuries religious embassies of Dominicans and Franciscans were sent to the north of Africa, the middle east, India and China to convert pagan peoples, future allies against the Muslims, or even the Muslims themselves. Although the results were temporary and few, both orders accumulated experience and interest in the missionary field and by the end of the 15th century at least one Christian stronghold outside Europe, the Canary Islands, did credit to their missionary zeal. (4)
of exploration and slave raids, and eventually some frustrated attempts at peaceful evangelisation. By 1519 the Caribbean coast from northern Brazil to the Gulf of Mexico had been explored, temporary exploitation was being carried out on the coast of Venezuela and a permanent Spanish settlement had been established in Castilla del Oro, present day Panama and northern Colombia; by 1513 these settlements had expanded as far as the Pacific Ocean. Thus the key to the East Indies and Peru had been found, while the exploration of Mexico put the Spaniards in contact with the Aztec confederation. (6)

In the following years, until the 1570's, the main tasks of the Spanish crown in America, after subduing the Aztecs and the Inca empire, were the organisation of the economic, civil and ecclesiastical administration of these nuclear zones and the consolidation and expansion of their frontiers, in relation either to other European powers or the scattered and politically unorganised Indian peoples outside the nuclear zones.

The expansion of the church kept up with military expansion and we will therefore look first at its establishment in what had been the Aztec empire. The fall of the Aztec confederation in 1521 gave rise to the first systematic campaign to evangelise the American Indians in what is today known as central Mexico. This process followed the stir produced by the Dominicans in Hispaniola, the consequent royal concern over Indian affairs and the religious zeal of the conquistador Hernan Cortes. (iii)

(iii) His main ambition (Cortes') seems to have been to carve out a kind of autonomous fief for himself, theoretically subject of the king of Spain, but he could not admit the thought of ruling over pagans, and he always strove to pursue the religious conquest at the same time as he pursued the political and military conquest ... If one can reproach Cortes it is not for his laxness in the conversion of the Natives; but on the contrary for having undertaken it hastily, without method, and for having forged ahead without pause.' (7)
Cortes was soon asking the king for missionaries to propagate the faith among the Indians; they were to be friars of the mendicant orders provided with wide powers in order to avoid the hierarchy of bishops and canons who were too costly and set a bad example. Cortes' ordinances of 1524 commanded encomenderos to destroy Indian idols and the practice of human sacrifices, to institute compulsory religious indoctrination of all male children, and to ensure the presence of a priest in each encomienda to instruct the Indians in the Christian faith. That same year twelve Franciscans, strictly selected for their observance and knowledge of the faith, arrived in Mexico and began the evangelisation of the Indians. Two years later a dozen Dominicans joined them and in 1533 a group of Augustinians. The flow of friars increased constantly, both to replace dead missionaries and those leaving for Spain or to open new missions, and by 1559 the Franciscans were running 80 convents with 380 friars, and the Dominicans and Augustinians had 40 convents with 210 and 212 friars respectively. Thus their missions covered practically all central and south-west Mexico and they were opening new fields through scattered missions in the north. (8)

The missionary work of the religious orders did not stop in Mexico or any of Spanish America during the whole colonial period as can be seen in Table 1. However, the period from 1523-4 until the 1570's represents the foundation of the Mexican church. During that period massive, if somewhat superficial conversion of the Indians in the more densely populated areas occurred, the most evident expressions of paganism were eliminated, the hierarchy of bishoprics and archbishoprics was established and the first two provincial councils defined the policy of the church in the years to come on several issues.
Table 1: Foundation of Missions in New Spain During 16th, 17th and 18th Centuries

<table>
<thead>
<tr>
<th>Mission</th>
<th>16th Century</th>
<th>17th Century</th>
<th>18th Century</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franciscans</td>
<td>132</td>
<td>61</td>
<td>115</td>
<td>311</td>
</tr>
<tr>
<td>Dominican</td>
<td>48</td>
<td>6</td>
<td>28</td>
<td>84</td>
</tr>
<tr>
<td>Augustinian</td>
<td>89</td>
<td>-</td>
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</tr>
<tr>
<td>Jesuits</td>
<td>23</td>
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<td></td>
<td>292</td>
<td>177</td>
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</tbody>
</table>

Source: Florescano (ed) 1975: p.136

This was a period in which the mendicant orders, superior to the secular clergy in quantity and quality, had unchecked religious jurisdiction over their missions and doctrinas (Indian parishes). Moreover in places of scattered aboriginal population, the friars concentrated the Indians in 'villages of evangelisation' entirely in the hands of the religious, both in spiritual and temporal affairs. In these villages the friars were the administrative and religious heads of the community and organised its economic and cultural life. There was some formal delegation of duties to Indian governors and municipal councils and the diminishing power of the Indian chieftains was retained. The friars also spread the cultivation of new crops and the grazing of cattle, improved the systems of irrigation and controlled the funds collected by the community to meet their expenses, such as taxes and supporting the missionaries. (9) The mendicants also sought a total segregation of the Indians. In 1551 on the request of the Franciscans and Dominicans royal orders banned the presence of Spaniards, other than the missionaries, in the villages for.
ten years. The linguistic barrier between the two populations, which was at first overcome by the friars by interpreters and then by the mastery of the different Indian tongues, reinforced this segregation and was consciously maintained by the friars. Instead of expanding the use of Spanish, which was considered indispensable by the crown for a rapid hispanisation of the Indians, they used Nahuatl, the main tongue in the area, for religious indoctrination and daily life in the villages.

This policy of segregation was a response to two different motivations which were not totally incompatible. On the one hand, there was the missionary zeal of the early mendicants who saw in the New World the possibility of a total renovation of the Catholic church. The eagerness of the Indians to be converted to Christianity and their poverty and simplicity, which matched the mendicants' ideals of zeal and poverty, appeared to the missionaries to be the conditions of expansion of the primitive apostolic church. The abuses and bad examples provided by the Europeans to the Indians corrupted them and it was necessary, therefore, to enforce a strict segregation of the Indians under the tutelage of the friars. On the other hand, by the 1560's, a new wave of less observant and less learned friars had appeared whose defence of segregation was a response to worldly interest, the protection of their political, ecclesiastical and economic privileges, rather than the spiritual aims of the early mendicants. (10)

Political, economic and military life in the Aztec world was permeated by a deeply religious character and subjected to priestly supervision. Periodic wars, 'guerras floridas', were planned according to the calendar to provide their deities with victims for their ritual sacrifices. Religious
feasts, also arranged on a calendar basis, gathered together all strata of Aztec society, and the sacrifices, songs and dances performed in honour of their gods and heroes were necessary rituals for ideological integration of the confederation. A special seminary, the Tlamacazcalli, prepared the future priests who were selected from the most gifted youngsters and had already been submitted to previous formal education. The Cuicalli, a more extended educational institution, taught them religious songs and dances, while the mecatlan prepared musicians for the religious cult. (11) The destruction of the theocratic state apparatus of the Aztecs during the conquest created a hiatus which was difficult for the conquistadores to fill, hence the desperate call for friars made by Cortes. The church, and primarily the mendicant orders, faced the problem of replacing the whole system of values and beliefs of the Indians and their material expressions by Christian ones. In so doing they incorporated (consciously or not) the cultural prehispanic background into the Christian cult. Thus, many convents and churches were built upon the prehispanic teocallis and pagan sanctuaries and pagan feasts were replaced by processions which were widely attended by the Indians, and in these processions dances and songs, merely adapted to the new Christian faith, were performed. In the same way Indian instruments, such as flutes and drums, were incorporated into the religious services, while plays of religious inspiration, performed by Indian actors in their own tongues, were substituted for the Aztec traditions of theatrical representation. (12)

Obviously these were only auxiliary means which reinforced the religious indoctrination achieved by the
administration of the sacraments and proper religious instruction. Among the former baptism and marriage were of crucial importance. Baptism incorporated the Indians, after a variable period of instruction, into the Church. Initially, this was a mass process which reduced the rituals and the pre-baptismal instruction to a minimum; according to early chroniclers about five million Indians were baptised between 1524 and 1536. From the late 1530's however, the pace slowed down due to the protest raised by Dominicans and Augustinians against the Franciscans who were too eager to expand their flock without formalities. From that time the sacrament was administered after proper instruction and without omitting the normal ceremonies, this avoided confusion with pagan baptism practised by the Aztecs in pre-hispanic times. (13) Marriage presented a more critical problem since polygamy was a social and economic institution which was widely practised in Mexico. It occurred mainly among chieftains for whom their wives represented a labour force which they were not prepared to give up easily. This sector constituted the most important stratum of the society from the point of view of the conversion of the whole community. Moreover the practice of polygamy by the Spaniards themselves made it difficult to enforce monogamy even with the eventual intervention of the Inquisition to repress polygamist Indians. (14)

The friars soon realised that they were too few to conduct regular and mass religious instruction of the aborigines. They therefore concentrated their efforts on instructing a minority who would be able to transmit the doctrine to the rest of the population. Thus the more docile Indians were specially instructed in the doctrine and
reading and writing and were sent back to their own communities provided with special powers to continue the indoctrination of the rest of the Indians. The friars dedicated special attention to the education of children for the same purpose. Primary schools were founded by the orders in most of the convents to train Indian boys who were mainly but not exclusively the sons of the chieftains, in Christian doctrine, reading and writing in their own tongues and so on. Schools were also created for the girls to protect them from their pagan environment and prepare them for Christian marriage. However, the resistance of the Indians to allowing their daughters to be taken out of an almost absolute seclusion forced them to abandon this initiative after ten years.

The technical training of the aborigines that the friars undertook in some of their missions was more successful. The outcome was an elite of native craftsmen who were soon competing with the Spanish artisans. However, their most outstanding attempt to replace the prehispanic ideological state apparatus was the setting up of the college of Tlatelolco. It was designed to give secondary education to the Indian elite, who were recruited from all over Mexico, and eventually to create an Indian clergy. Accordingly, the pupils were taught among other subjects, Latin, logic, and philosophy by the leading authorities in those fields in America. The Franciscan initiative, though, proved to be premature. None of the students of the college felt inclined to receive the holy orders, and although there were remarkable successes in the learning of Latin, failure in the courses of theology and philosophy seems to have been frequent. In 1546, after ten
years, the order gave up teaching in the college and its administration passed to former students. This, plus the subsequent lack of resources had, by the end of the 16th century, transformed the school into a mere primary school for the boys of the neighbourhood. (15)

Finally the religious zeal of the friars had to cope with yet another problem. Continuing the mediaeval tradition in Europe which charged the church with responsibility for maintaining hospitals, the friars undertook the task of founding and organising institutions for the health care of the Indians. The task was most urgent since central Mexico, as formerly the Antilles and later the rest of Spanish America, was experiencing a catastrophic collapse of the Indian population. (v) This demographic collapse was the effect of a series of related causes: wars of conquest, extortion of Indian land and foodstuffs, forced labour, massive introduction of cattle and sheep which destroyed Indian cultivation and cultural resistance expressed in suicide and abortive practices. However, the most noticeable expression of this collapse was the spreading of Old World epidemics such as measles and smallpox which periodically decimated the Indians. The foundation of Indian hospitals by the friars was a response, in many cases, to this situation. Nevertheless, the expansion of hospitals was slow and the first Mexican Council was ordering, as late as 1555, the foundation of hospitals alongside churches and monasteries.

(v) Recent research has estimated the evolution of the Indian population in central Mexico as follows: 1519 23.3 million, 1523 16.8 million, 1548 6.3 million, 1568 2.6 million, 1580 1.9 million, 1595 1.3 million, 1605 1.0 million. (16)
According to Archbishop Montufar, by the 1580's all the main Indian towns, cabeceras, had been provided with hospitals. The friars relied on Indian therapists, very few of whom were trained physicians, Indian personnel and Indian economic contributions; their own role was therefore limited to one of organisation and spiritual guidance for the sick and the voluntary personnel. (17)

By the 1570's the golden age of the friars' church in Mexico had reached a turning point. The civil jurisdiction of the Indian judges supervised by the friars was being severely curtailed by the Audiencia of Mexico, which had started to bring cases involving Indians to its tribunal, as early as the 1560's. In the 1570's this policy was formally established by setting up a general Indian tribunal which served as a court of appeal for the decisions of the Indian judges. (18)

In terms of ecclesiastical jurisdiction the independence of the friars from the bishops began to be questioned after the first Mexican council (1555). The council ordered that all new doctrinas, Indian parishes, were to be filled with secular priests, and that the foundation of new convents was to be subjected to the authority of the bishops. Because of the friars' appeal to the king, the viceroy and the prelates were ordered not to intervene. In 1565, after the discussions of the Trent council, the second Mexican council again submitted the religious orders to the authority of the bishops and this time the order was founded in a Papal Bull (1564) which suppressed the privileges of the orders. Negotiations between the king and the pope abrogated the papal order in
1567, but in 1574 the Ordenanza de Patronato, patronage laws, put all religious activities in Spanish America under the double control of the bishops and the civil bureaucracy. The friars maintained most of their doctrinas, but they were slowly replaced, in the hispanised areas, by the now abundant secular clergy. (19)

We will now examine the process as it occurred in the Inca empire where the military and spiritual conquest followed a more uneasy path. Indian resistance to the Spanish army did not end with the assassination of the Inca emperor Atahualpa and the destruction of his army in 1533. Sporadic warfare followed until, in 1536, a general Indian uprising led by Manco Inca, half-brother of Atahualpa, managed to assemble an army of 50,000 men and besieged Cuzco, the Inca capital, for more than a year. After his eventual defeat by Spanish reinforcements, Manco Inca and his followers sought refuge in the mountains of Vilcabamba where a neo-Inca state, which was tolerated to a certain extent by the Spaniards, continued to challenge Spanish political organisation until its final destruction in 1572.

On the Spanish side, the followers of the leaders Pizarro and Almagro, who were informally organised according to kinship and regional loyalties, formed compact factions interested in a favourable distribution of the Indian labour force. These factions and their allies and the Indian leaders of Inca lineage and their followers, fought each other and the royal authority intermittently from 1537 to 1548. Only the tactful, decisive, intervention of the newly nominated president of the Audiencia, La Gasca, who was provided with
wide powers to re-organise the government and make economic concessions, defeated the rebellion of Gonzalo Pizarro (1544-48). This rebellion was in opposition to the enforcement of the New Laws in Peru, and its defeat initiated a period of political stability in the kingdom. (20)

As in the Aztec confederation religion played a key role in the political, economic and social life of the Inca empire. Agriculture, mining, building of temples, health care and the life cycle (birth, puberty and death) were all subjected to periodic ceremonies supervised by the priesthood. Great public ceremonies were a normal occurrence and included prayers, blood sacrifices, (rarely of a human nature) offerings of precious goods, music and dance, recitation, dramatisations and drinking. A special section of the priesthood, the Amautas, trained the Incas and the subjugated people's noble youngsters for their future responsibilities in the bureaucracy and religious structure, while divination provided the priests with the means of a decisive influence in decisions concerning political matters. All over the empire there were lands of the Sun, compulsorily cultivated by the communities to support the priesthood. At the top of the religious hierarchy stood the emperor's brother, although the emperor, of divine origin was logically his superior. The rest of the top ranking priests belonged to the nobility, they received special schooling and were in charge of the major temples. At the local level lower ranking priests or commoners who specialised in religious matters took care of the cult. (21)

The presence of the religious orders in Peru began in a practical form during the conquest. Mercedarians, Dominicans
and Franciscans founded their first convents in the area between 1532 and 1535. However, several factors impeded a rapid destruction of the religious institutions of the Indians and their replacement by an accepted Christian system of values and beliefs. First of all, during the period of civil wars, the violent resistance of the Indians was directed against Spanish soldiers and missionaries alike. In addition to this, many ecclesiastics and a majority of the Mercedarians participated in Pizarro's rebellion against the crown in an attempt to stop the enforcement of the New Laws in Peru. As a result of the defeat of the rebellion the Mercedarians lost the encomiendas and the royal favour necessary, according to the laws of royal patronage, to create new convents. The Dominicans, however, who were supporters of the crown, managed to retain theirs. (22)

The quantity and quality of the ecclesiastics in Peru up until the 1570's compare unfavourably with the Mexican church in the same period, and were insufficient for the conversion of a population only comparable to Mexico in size and political and religious sophistication. (vi)

By 1563 there were at least 350 ecclesiastics in Peru. However members of the three religious orders already mentioned and the Augustinians who arrived in 1551, who were more observant of the rules and appropriate for the conversion of the Indians, were scarce, while the abundant secular clergy

(vi) The Indian population of Peru from 1570-1620 has been estimated as follows: 1570 1,264,530; 1580 1,083,500; 1590 947,301; 1600 833,788; 1610 737,913; 1620 589,033. Regional research suggests that Indian population in Peru before the conquest was several times bigger than that of 1570. (23)
who were most of the time outside the control of a collegiate body, were, according to the reports of the time, 'interested in nothing but economic gain.' Among the religious orders themselves, the relaxation of discipline due to the isolation of the religious in the doctrinas led to economic extortion of the Indians and other abuses; the Jesuits, who arrived in Peru in 1568 were, in general, an exception. Finally, the encomenderos had, during the first decades of colonisation, unchecked power to nominate the 'doctrineros', the ecclesiastic or layman in charge of the religious instruction of the Indians, in their own encomiendas. Obviously they preferred to appoint those who were most cooperative in the exploitation of the Indians and in many cases they served as estate managers for the encomenderos. This situation began to be contested in 1552 when a royal order commanded the bishops to appoint the doctrineros. Later Viceroy Toledo (1568-80) submitted the appointment of doctrineros to the royal bureaucracy. (24)

The political stability of Peru began with President la Casca in 1548 and, later, the more centralised government of Viceroy Toledo which began the outline and implementation of an Indian policy both in civil and ecclesiastic matters. From the 1550's the missionaries realised the importance of Quechua, the original tongue of the Incas which had been spread all over their empire, as an indispensable instrument for evangelisation. Thus the first Quechua grammar was published (1560) and chairs of Quechua established in the cathedral, the university and Jesuit colleges. By 1550 the Dominicans had founded a network of schools and the Franciscans and Augustinians began to found theirs. However, from
the start the expectations of the religious with regard to
the Indians were more limited than those of the early friars
of Mexico. Technical education was only imparted by the
Franciscans of the fringe area of Quito. Neither schools
for Indian girls nor special colleges for the Indian nobility
were created in the 16th century. Boarding schools for the
nobility were founded only in the second and third decades of
the 17th century giving instruction to a tiny fraction of it.
In the field of Indian health care, which assumed importance
because of the constant epidemics, the Peruvian religious also
lacked initiative. The first Indian hospital was founded in
1549 by the bishop who was a Dominican, but the bulk of hos­
pital foundations in the period were in the secular sphere,
although most of them came under the control of the church
later. (25)

The dispersion of the Indians in places which were in­
accessible to ecclesiastic and civil control and where they
were not subjected to tribute and continued to worship their
own deities, was tackled by the policy of concentration of
Indians in villages, pueblos, from the beginning of the 16th
century. Royal orders in 1536 and 1549 had ordered the
foundation of Indian pueblos in Peru, however, the implemen­
tation of this policy seems to have begun only in the 1560's
and was applied on a large scale in the 1570's under Viceroy
Toledo. In these pueblos and other, older doctrinas the
doctrineros acquired, for a while, vast powers in the ecclesias­
tical and civil organisation of the Indian communities.
They selected and supervised the Indian alcaldes who exerted
religious and civil authority over the rest of the Indians,
and eventually the Indians began to appeal to ecclesiastical
courts. In 1565 the post of Corregidor de Indios (a Spanish judge) was created and the judges exerted their jurisdiction over, and in competition with, the native alcaldes. Finally in 1575, the latter lost their civil prerogatives and the doctrineros their influence. (26)

In this situation of mediocrity and lack of numerical strength of the religious orders, combined with prolonged Indian resistance, the process of replacement of the Indians' ideological apparatuses and practices was delayed. The purely negative phase of this process, i.e. the destruction of the native priesthood and pagan practices and idols, maintained its primacy well after colonial Peru's formative period in the 16th century. The Indians superficially indoctrinated and doubly exploited by colonists and the church, relapsed into the worship of their ancestral deities as a form of cultural resistance. Church and government alike had to engage in massive campaigns for almost a century (1570-1660's) to eliminate the most conspicuous forms of idolatry. (27)

A reflection of this atmosphere of anti-idolatry at the theoretical level was the chronicles of the Spanish religious. The study of prehispanic religion and culture in the late 16th century constituted a practical guide to the church for the destruction of Peruvian prehispanic religion. The main Spanish chroniclers of the religious orders, Morva, Acosta and Oliva, in spite of some sympathy for the Indians, denied the existence of any positive aspects in the Inca religion, and saw in the resemblances between Inca and Christian religions the work of the Devil to mislead the good religious instincts of the people. A big hiatus was thus created between the ideology the Indians were forced to believe in and their
cultural past. Only acculturated mestizo or Indian chroniclers, such as Garcilaso, Poma de Ayala and Pachacuti, were able to recover the Inca heritage by enhancing the positive elements of Inca religion and government and ascribing to them the mission of paving the way for the acceptance of the Christian faith. By contrast, in late 16th century Mexico, Spanish members of the religious orders, such as Duran O.P., Tovar O.S.A. and Mendieta O.F.M., were those who vindicated religious aspects of the Indian past in their chronicles. In spite of a general church attack on the Aztec religion and a crown policy of censorship of the friars' research on pre-hispanic culture and religion, these religious saw, in the similarities of rituals, symbols and religious concepts of the Mesoamerican and Christian traditions, the hint of a prehispanic evangelisation of the Indians, and not, as the early friars of Mexico or the Peruvian ecclesiastics of the late 16th century, devices of the Devil used to deceive the aborigines. Quetzacoatl, a prehispanic mythical prophet, associated by the early friars with the Devil, acquired in their writings a new status: prehispanic apostle of the Indians or Messiah of the Jews from which the Indians were descended. Thus Indian 'history' was vindicated by its incorporation into the biblical tradition, and the mainly pagan anthropophagous-barbaric view maintained by the anti-Indian party was refuted. (28)

(vii) This censorship was aimed at all the research carried out by the friars even when it was seeking to discover the means to destroy idolatry such as that of Sahagun.
To sum up, during the 16th century, which was its formative period, the Peruvian church and its more dynamic sector, the religious orders, lacked the apostolic zeal and numerical strength of their Mexican counterparts. Their achievements in the field of Indian indoctrination, education and health care were limited and in many respects, especially after the 1570's, they were mere instruments of the general policy of the crown towards the aborigines and lacked any initiative of their own. The resistance of the Indians and the religious orders' lack of discipline and appropriate knowledge of Indian languages and culture, their direct or indirect exploitation of the Indians and other abuses, which were permitted by their association with encomenderos, and the dispersion of ecclesiastics over vast areas without the control of their superiors, meant delays in the conversion of the Indians and resulted in intervention of the royal bureaucracy and the Inquisition to stop the most conspicuous forms of corruption. The spirit of exaltation and defence of the Indians against the colonists shown by the Mendicants in Hispaniola and Mexico was weakly reflected in the attitude of the Franciscans of the Quito area and a fraction of Peruvian Dominicans inspired by Las Casas (Fr. Sto Tomas and San Martin). The Jesuits, of late arrival, had little impact in the missionary field due to their reluctance to accept doctrinas. However, in the last quarter of the century they imposed, in their missions of Juli on lake Titicaca, a model of christianisation similar to the Mexican 'village of evangelisation', where education, health care, technical improvement, and rudimentary forms of self government, under the tutelage of the Jesuits, went hand in hand with religious
indoctrination; all this took place in an environment of total segregation of the Indians from all Spaniards except the religious. This model was widely applied outside Peru proper, particularly in Paraguay. (29)

The presence of the religious orders in central Mexico and Peru continued to be important until the second half of the 18th century when the crown began a systematic replacement of the religious by secular priests to control the doctrinas. From the 1570's, particularly after the Orders of Patronage (1574), the autonomy of the religious orders was severely curtailed and they were put under the control of the bishops and the royal bureaucracy. Furthermore, the extension of Spanish justice to the cases involving Indians during the 1570's left them with little authority in both temporal and spiritual matters. At the same time increasing numbers of secular clergy, who were arriving from Spain and graduating from the Universities of Mexico and Lima and later from the seminaries of both the regulars and the dioceses, were pushing forward to obtain parishes.

This situation compelled the regular clergy of central Mexico and Peru to play a decreasing role in the civil life and in the 'care of souls' of the Indians. They had to limit their activities to teaching in universities and other educational centres and to convent life. The doctrinas, in direct contact with the Indian flock, were slowly handed over to the secular priests. However, as the conquest of new territories and the consolidation of recent conquests still required the services of the religious orders, they
continued to play a decisive role as founders of the church in many other peripheral areas during the whole colonial period; we will return to this below. (vii)

Alongside the expansion of the church, which was mainly carried out by the missionary work of the religious orders, the hierarchical apparatus of the church in the form of bishoprics and archbishoprics, cathedral chapters, organisation of the population into parishes and levying and collecting tithes was soon taking root.

The creation of sees, see Table 2, which was under the control of the crown, was subject to the rapid process of expansion of the empire, scanty knowledge of geographic boundaries and miscalculation of the economic and demographic potentialities of each area. (ix) Many of the newly created

(viii) In these more peripheral areas the conflict between the ecclesiastical hierarchy and the regular clergy reappeared. Once the Indians of the frontier zones had been pacified, settled in pueblos and converted to Christianity, the freedom of the regulars to organise the religious life of the mission began to be questioned by the bishops. In 1583, Philip II under pressure from the prelates, ordered that secular priests be favoured rather than regulars in the provision of doctrinas. The protests from the Orders made him revoke the order ten years later and equalise both clergies as far as the provision of doctrinas was concerned. The royal orders of 1573 only provided a period of ten years before the missions were to be incorporated under diocesan jurisdiction and provided with secular clergy. However the incapacity of the secular clergy to provide these doctrinas with priests who were proficient in the Indian tongues, and the natural resistance of the regulars, either to completely give up their missions or for them to come under the jurisdiction of the bishops, meant a continuous dispute between the clergies. The prolonged law-suits which followed were decided in the last instance by the crown, without recourse to Rome. The king, as patron of the church in America, balanced the interests of both parties, appointing secular or regular clergy in the doctrinas according to his own political interests. (30)

(ix) As early as 1504 the Spanish crown obtained permission from the pope to create three sees in the island of Hispaniola with three prelates presented by the king. As the bull of creation of the sees did not concede rights of patronage to the kings of Spain as had been requested, the crown delayed the provision of the sees. When the rights of patronage finally were conceded (1508) the three sees that had been created
sees had to be annulled, (x) have their boundaries changed, or be incorporated into another see (xi). Others were subject to a process of subdivision throughout the colonial period. Because of this new foundations had to be established to keep pace with the increase of the Christian population, which was made up of Spaniards and newly converted Indians, the increase of regional wealth, particularly the exploitation of rich silver mines, and the civil territorial divisions.

Footnote (ix) cont.

were no longer suitable due to the demographic changes in the colonies caused by the emigration of Spaniards and a decrease of the Indian population in the areas concerned. Accordingly the king asked for the annulment of these sees and their replacement by three new sees, two in Hispaniola and a third in Puerto Rico. This petition was conceded by the pope in 1511 and by 1514 the three of them were operating properly. (31)

(x) For example, the bishopric of Tumbez (north of Peru), requested by Charles I around 1530, was discarded later on when the Spaniards realised the political, strategic and demographic importance of Cuzco, which was therefore transformed into the first Peruvian see. Also the see of Tierra Florida, founded in 1521 without the request of the king, was never provided for. The creation of the sees of Trujillo and Arequipa, requested by the crown in 1576 and conceded a year later, was annulled on the request of the Cathedral chapters of Peru since it would have shrunk their income (tithes). These sees were finally provided in 1609. (32)

(xi) Concepcion de la Vega had a short life, after 17 years and because of its poverty it was incorporated into the see of Santo Domingo in 1528. The see of Imperial, after a flourishing period, was moved to Concepcion in 1603 and later incorporated into the bishopric of Santiago from 1608 to 1623 because of the lack of economic and human resources. (33)
Table 2: Bishoprics and Archbishoprics in Spanish America during the colonial period (up till 1800)*

<table>
<thead>
<tr>
<th>The Antilles, Central and North America</th>
<th>South America</th>
</tr>
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<tbody>
<tr>
<td>Bishopric</td>
<td>Archbishopric</td>
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<td>-----------------------------------------</td>
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</tr>
<tr>
<td>Santo Domingo</td>
<td>1511</td>
</tr>
<tr>
<td>Concepcion de la Vega</td>
<td>1512</td>
</tr>
<tr>
<td>San Juan de Pto Rico</td>
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<td>Antigua-Panama</td>
<td>1513</td>
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<tr>
<td>Baracoa-Stgo de Cuba</td>
<td>1517**</td>
</tr>
<tr>
<td>Tlaxcala-Puebla</td>
<td>1519**</td>
</tr>
<tr>
<td>Mexico</td>
<td>1530</td>
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<tr>
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<td>Comayagua (or Hdruras)</td>
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<td>Guatemala</td>
<td>1534</td>
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<tr>
<td>Oaxaca (or Antequera)</td>
<td>1535</td>
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<td>Michoacan</td>
<td>1536</td>
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<tr>
<td>Chiapas</td>
<td>1539</td>
</tr>
<tr>
<td>Guadalajara (or N. Galicia)</td>
<td>1548</td>
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<tr>
<td>Tucatan</td>
<td>1551</td>
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<tr>
<td>Verapaz</td>
<td>1551</td>
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<tr>
<td>Durango (or New Biscay)</td>
<td>1620</td>
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<tr>
<td>17th century</td>
<td></td>
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<tr>
<td>18th and 19th centuries</td>
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<tr>
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<td>1777</td>
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<td>Sonora</td>
<td>1779</td>
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<td>La Habana</td>
<td>1787</td>
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*Sources: Lopategui 1965: 178-9. Vicente (ed) 1974, III:371, IV: 365; Schaffner 1935-47, II: 203. Dates indicate papal creation of the see. Usually a few years passed before the royal provision of the see. In a few cases the date of creation of the see is disputed but a difference greater than five years is never involved. This does not alter our analysis. We have followed the dates given by Zubillaga. ** Hyphen signifies a change of location of the see from the first place indicated to the second. (Zubillaga 1965: 278-9, 296. Egana 1966: 12, 559, 251, 142) *** See footnote (ix).
### Table 2: Bishoprics and Archdioceses in Spanish America during the colonial period (up till 1800)*

<table>
<thead>
<tr>
<th>The Antilles, Central, and North America</th>
<th>South America</th>
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<td>Santo Domingo</td>
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<td>Concepcion de la Vega</td>
<td>Santa Marta</td>
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<td>San Juan de Pto Rico</td>
<td>Cartagena</td>
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<td>Antigua-Panama</td>
<td>Cuzco</td>
</tr>
<tr>
<td>Maracaibo-Stgo de Cuba</td>
<td>Lima</td>
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*Sources: Lope de Vega 1965: 178-9. Vicens (ed) 1974, I: 371, IV: 365; Schaffner 1935-47, II: 203. Dates indicate papal creation of the see. Usually a few years passed before the royal provision of the see. In a few cases the date of creation of the see is disputed but a difference greater than five years is never involved: this does not alter our analysis. We have followed the dates given by Zubillaga.*

** Hyphen signifies a change of location of the see from the first place indicated to the second. (Zubillaga 1965: 278-9, 286, Egan 1966: 12, 559, 251, 142)

*** See footnote (ix).
The creation of sees in America can be divided into three phases. During the formative period before the 1510's, when the bureaucratic structure of the Spanish state was not yet organised in America, bishops and archbishops played an important political role, either in the protection of the Indians or as mediators in the continuous friction between sectors of the conquistadores. In the 16th century the Council of the Indies, recognising the honesty of the religious orders and their valuable contribution to the imperial policy of the crown, gave preference to friars in their nominations for the American sees: this was despite the opposition of Charles I. Thus, during the 16th century almost two thirds of the American prelates came from the religious orders. During the 17th and especially the 18th centuries, however, the more docile secular clergy fitted the regalist policies of the crown better. Accordingly a majority of the episcopal vacancies in America were filled by secular priests.

The Council also considered it desirable to appoint as prelates ecclesiastics who were not yet in America and therefore not linked to the economic interests of the encomiendas. In later centuries bishops and archbishops were chosen from ecclesiastics living in Spain or those living in different sees from that in which they were appointed. Thus, whether consciously or not, an ecclesiastical ladder was created by the crown. In it the bishoprics that were peripheral and had less resources constituted the first step in an ecclesiastical career which could lead to promotion, either to the most important archbishoprics of the Indies, i.e. Mexico or Lima, or at least to the richest and most comfortable sees such as Cuzco and Puebla; this would depend on personal merit, loyalty
to the crown or personal contacts. In many cases the loyalty of prelates to the interests of the crown resulted in the appointment of bishops and archbishops to civil posts such as Audiencias, governorships or even viceroyalties, either on an interim or a permanent basis; this happened despite royal regulations against the practice. (34)

The American episcopacy, then, appointed by the crown, constituted the higher stratum of an ecclesiastical bureaucracy dependent more on royal favour than the weak influence of Rome.

Once the right of patronage had been granted the creation of Spanish sees in America and their provision closely followed military expansion and colonisation. By the 1570's the majority of the sees that were to exist during the colonial period had been created. During this first phase the Antilles, followed by the territories of northern South America and finally central Mexico and Peru and their neighbouring areas, came, at least in theory, under the spiritual government of bishoprics and archbishoprics which stretched from Guadalajara to the centre-south of Chile.

A second phase of creation of sees started at the beginning of the 17th century. In the large territories of present Ecuador and Peru three new sees were created. The bishopric of Charcas, where the Spanish population had grown enormously because of the increasing production of silver, was elevated to the rank of archbishopric and its north-western and eastern territories were transformed into the independent bishoprics of La Paz and Santa Cruz. In Mexico, the territories of the governorship of New Biscay, which were ecclesiastically dependent on the see of New Galicia, were transformed into an
autonomous bishopric. The now important Spanish settlements around the rich silver mines of New Biscay and the previous pacification of the Indians necessitated the formation of an independent see in 1620. In the same year, Buenos Aires, which belonged to the geographically enormous see of Asuncion, was elevated to the rank of bishopric in order to match its boundary with the planned governorship of Buenos Aires. (35)

The final phase of creation of bishoprics covers the last three decades of Spanish rule in America. These new sees were established with the aim of making the boundaries of the civil and ecclesiastical administration coincide. At the same time, the crown obtained the means of exerting firmer control over the activities of the religious orders in the missionary zones through the bishops appointed by the king. (36)

Having outlined the way in which the church hierarchy established itself in the wake of the religious work of the missionaries we will now return to the role of the religious orders in the peripheral areas of Spanish America.

Almost from the outset, royal legislation ordered that there be churchmen approved by the Council of the Indies in each new conquest expedition setting out from the central areas. (xii)

For instance, an order of the council in 1573 commanded the presence of clergymen in each expedition and emphasised the conversion of the Indians. Friars and peaceful Indians were to be in charge of the exploration and if there were enough

(xii) In 1526 the orders relating to discoveries and conquest promulgated by the Council of the Indies, commanded that at least two ecclesiastics should be present in each conquest expedition. They were to be in charge of the good treatment of the Indians and to have powers to stop landings in unexplored lands and to denounce before the Council. The New Laws of 1542 ordered the presence of one or two religious in each expedition of discovery, while the instructions to the conquistadores of River Plate and Tucuman (1556) ordered the presence of ecclesiastics who were to be consulted on all important matters.
churchmen to secure the conversion of the Indians no other Spaniards should be admitted to the area; this was to avoid disturbing pacific conversion. Because of this type of legislation, at least in theory, the regulars enjoyed a high degree of freedom to control the development of the marginal areas of the continent, particularly after the 1570's. (37)

Further new discoveries and conquests, together with legislation promoting a peaceful conversion of the Indians, were taking place at the same time as the regular clergy were slowly being replaced, in the central areas, by secular clergy. These factors led to an increasing mobilisation of the religious orders to cover the territories that were newly incorporated or about to be incorporated into the Spanish crown. What follows is a brief descriptive account of this mobilisation from the 1570's onwards. It seems to us necessary to include this account here in order to assess the extent of the participation of the religious orders in the colonial enterprise. We will then go on to characterise the missions from a socio-political point of view.

In Mexico a vigorous missionary expansion towards the north had begun by the end of the 16th century. The isolated missions of the Franciscans founded in the 1550's in Zacatecas, Durango and Sinaloa (north-west Mexico) were reinforced from the 1590's onwards by numerous Jesuit missions which, during the 17th and 18th centuries, converted the main tribes of this large area to Christianity and confined them to pueblos. During the 17th century several military and missionary expeditions attempted to settle the Peninsula of California by crossing the California Gulf which had until then been considered an
island. Around 1700, Jesuit explorations in Sonora and Arizona demonstrated that it was a peninsula which it was easy to reach and settle by crossing the Colorado river. Accordingly, during the 18th century, missionary posts were established in Arizona and the Indians of the peninsula were reduced to pueblos and converted.

In the meantime, during the 17th century, the Franciscans had established numerous missions in north and north-east Mexico and by the end of the century they had reached Texas. In New Mexico, where earlier secular attempts at pacification had been unsuccessful, the friars managed to establish a permanent network of Christian Indian settlements in the early 17th century. Finally in Florida, in the 17th and 18th centuries, the friars continued the missionary work which had been abandoned by the Jesuits in the 1570's, establishing over 20 pueblos.

However, the 'spiritual conquest' of the Indians by the religious had its ups and downs. The abuses of the Spanish colonists which surrounded the missions and the Indians' reluctance to accept the Christian faith and give up their ancestral customs provoked continuous uprisings, which often ended with the killing or withdrawal of the missionaries, the colonists and sometimes the Christian Indians themselves. To protect the pueblos against these rebellions and eventual attacks from other European powers, a long line of military posts was established by the crown. This line stretched along the south of present USA from San Agustin (north of Florida) to San Francisco. (38)

Likewise, in South America, the regulars followed the path taken by the conquistadores. By the end of the 17th century the regular orders had founded 70 convents and numerous doctrinas.
in Chile where their first convents had been established in the late 1540's and '50's. Those were often located near the frontier with the warlike Mapuches and so suffered the advances and retreats of continuous warfare as did the secular Spanish settlements.

During the 1580's in Paraguay, the Franciscans initiated the process of confining the Indians to pueblos in order to convert them. A few years later Jesuits arrived from Peru and began a rigorous programme of missionary work. From the early 17th century they worked along the river Parana, Uruguay and Pilcomayo with uneven success. They also started missions among the Moxos of northern Bolivia, beginning a slow process which culminated, a century later in the 1680's, with the congregation of the Indians into several pueblos. Among the Chiriguhanos of southern Bolivia missionaries of various orders had less success due to the bellicosity of the Indians and the lack of missionaries. It was only at the end of the 18th century that the Franciscans managed to establish a network of permanent missions in the area. At the end of the 17th century the Chiquito Indians of western Bolivia accepted Jesuit missionaries who, by the time of their expulsion from Spanish America (1767) had 10 permanent missions. (39)

In the bishopric of Quito, roughly present Ecuador and northern Peru, Franciscan and Jesuit missionaries had, during the 17th century, explored and established missionary posts between the Napo and the Coca rivers, and had gone up the Amazon as far as the Rio Negro (present Brazil). However, during the 18th century, Portuguese and Spanish slave raids, and the consequent rebellions of the Indians against Europeans in general, caused a serious setback for the missions; because
of this the Spanish crown lost some 700-800 miles of territory along the Amazon river. In the area of present Colombia and Venezuela the religious, particularly Franciscans and Capuchins, covered practically all the territory with their missions. Their presence in Venezuela was particularly important as it was sparsely colonised and was under threat from the neighbouring settlements of the Dutch, English and French in Venezuelan Guayana and from the Portuguese in the upper Orinoco river. From the 17th century, missionaries with military help covered the coast east of Caracas and expanded towards the upper Orinoco, thus checking the advance of other European powers.\(^{(40)}\)

In the territories of present Argentina efforts were made by the Jesuits in the second half of the 17th century, which was relatively early, to explore the south and establish permanent missions. Despite the temporary character of these missions they explored all southern Argentina reaching the economically and militarily strategic Magellan Straits.\(^{(xiii)}\)

The increasing importance of Buenos Aires as a Spanish settlement at the beginning of the 17th century led to the start of missionary work in its surroundings. However its inhabitants, the Pampa Indians, were only confined to pueblos for a short period in the 1740's after which they returned to their freedom or were assimilated into the Spanish society of Buenos Aires. The area stretching from the north of Buenos Aires to

\(^{(xiii)}\) The Magellan Straits were the key to the Pacific Ocean. Through them, Spain was commercially and militarily connected with the viceroyalty of Peru and the Philippines. The Spanish never gained real control of them and this permitted pirate and military incursions of the English and the Dutch. The latter raided the Pacific coast several times during the first half of the 17th century with the aim of establishing military and trading posts in Chile or Peru in alliance with disaffected Indians. The Jesuits realised the importance of the territories and proposed to the king that they establish settlements in the area to prevent its occupation by other European powers. As a reply the king ordered them to establish missionary posts in the south of Argentina. \(^{(41)}\)
the frontier of Bolivia was inhabited by the warlike Macobi, Abipon, Vilela and Lule Indians. The scattered Spanish settlements which formed a commercial route between upper Peru and the Atlantic, such as Santa Fe, Santiago del Estero, Salta and Jujuy, were targets for the Indians' sporadic attacks, which were a consequence of the abuses they suffered at the hands of the Spaniards during the 17th century. In the first half of the 18th century, however, these Indians, forced by Spanish troops or convinced by the religious, were congregated into pueblos under the control of the Jesuits. (42)

This rapid summary of the spiritual and military conquest of the peripheral areas of Spanish America merely provide us with a geographic schema. In it we have only outlined the principal routes of penetration of missionaries and conquistadores and their limits. It is necessary for our analysis to characterise the Spanish missions from a socio-political point of view. H.E. Bolton has appropriately summarised the role of the missions in Spanish America, and although he centred his study on the missions of the northern Spanish border in northern Mexico, California, Arizona, New Mexico, Texas and Florida, his analysis applies, with some qualifications, to the missions of all the areas of the empire.

'... the missions served as frontier agencies of Spain. As their first and primary task, the missionaries spread the Faith. But in addition, designedly or accidentally, they explored the frontiers; promoted their occupation, defended them and the interior settlement, taught the Indians the Spanish language, and disciplined them in good manners, in the rudiments of European crafts, of agriculture, and even of self government. Moreover, the missions were a force which made for the preservation
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of the Indians, as opposed to their destruction so characteristic of the Anglo-American frontier. For these reasons, as well as for unfeigned religious motives, the missions received the royal support. They were a conspicuous feature of Spain's frontiering genius.' (43)

This statement, which is in general correct, must be qualified to some extent since it overrates the positive aspects of the missionary system and does not take into account its weaknesses and difficulties. We will select three main areas which need to be substantiated or qualified. Firstly, the interest of the crown in stimulating missionary expansion in the border areas as a means of securing the frontiers of the empire, which Bolton correctly stresses. Secondly the demographic results of the incorporation of the Indian population into the missionary system, and thirdly the economic and cultural organisation of the missions.

1. The frontier character of the Spanish missions and their importance as a means of stopping the advances of other European powers and pacifying rebel Indians is unquestionable. The laws of patronage (1574) enormously restricted the freedom of choice of the religious orders to decide on their fields of work. This, plus the allocation of economic resources, which were always granted according to the needs of expansion or defence of the frontier, meant that there was a tight royal control over missionary work. Thus, the missions of eastern Texas and upper California, which were important for the religious, only received economic support and became a reality when the French from Louisiana and the Russians from the northern Pacific coast threatened the northern frontier. In Venezuela, in about 1740, the missionaries of the upper Orinoco discovered
the presence of Portuguese slave raiders and reported it to the
crown. The latter, through diplomacy, obtained the withdrawal
of the Portuguese from the area. In western Bolivia, the
Chiquito Indians of the Jesuit pueblos along with the Spanish
armies defeated the Portuguese slave raiders at the end of the
17th century. As a reward, the crown permitted the Chiquitos,
at the request of the Jesuit missionaries, to be exempt from
tribute for 20 years and from encomienda for good. This per­
mitted the increasing recruitment of Indians for the missions
and a safe frontier for Spanish settlements. (44)

The most important barrier against Portuguese incursions
was, however, the Guarani missions of the rivers Uruguay-
Paraguay-Parana. Founded in the second half of the 17th century,
they were intermittently attacked by Portuguese slave raiders
during the 1620's and 1630's. Nine of the eleven missions of
the Gusira area along the river Parana and Panama, which is
now Brazil's, were devastated by the Portuguese, who managed to
capture 8,000-9,000 slaves in 1528. The two remaining missions
of Gusira had to be transferred to Paraguay in 1531. Further
Portuguese attacks included those on the missions in the state
of Rio Grande do Sul (Brazil), which had to be given up by the
Spanish Jesuits in 1638 after 10 years of missionary work among
the Tape Indians, and incursions into the south of Paraguay and
north of Argentina. Because of the tolerance of the Spanish
colonists and government to these events the Jesuits stimulated
the armed resistance of the Indians. Thus in 1639, the
Indians of the reduction led and armed by the Jesuits, put a
stop to the Portuguese slave raids in the north of Argentina.
From the late 1640's onwards Indians of the Guarani reductions
acted as an army at the disposal of the local government both
to stop the threat posed by the Portuguese and other foreign
powers in the river Plate region and to check Indian or civil rebellions in the area. For these purposes, and for their own self defence, the Jesuits of the reductions obtained the right to use a large quantity of fire arms. To secure the loyalty of the Indians they obtained several privileges for the Guaranies, among them exemption from encomienda and the payment of a very low tribute to the crown. (45)

The outstanding role played by the Guarani reductions in the defence of the Spanish frontier was in many ways an exception. Guaranies were the most culturally advanced Indians of the region and were located in an area of vital importance for the defence of the empire. The weakness of the Spanish state in that region and the negotiations of the politically and economically influential Jesuits made possible the unique case of a well trained and well equipped Indian army being put at the disposal of the crown. In other areas Indians fought alongside the Spanish garrisons but their role was subsidiary and their weapons primitive. Without the support of the Spanish soldiers these missions would have been easily devasted by rebel Indians or foreign powers, as were the missions of the Amazon river and the Guaira reductions. (46)

2. The role of the missions in the preservation of the Indian population, important as it was, should not be over estimated. The protection of the Indians from slave raids and personal service to the Spanish colonists saved the aborigines from some of the major causes of the decline in the Indian population. However it seems that the change in the production and settlement practices in the missions produced a high rate of mortality among the neophytes. The missionaries of lower California practically depopulated the peninsula by
restricting the nutrition level of the Indians to a minimum. (xiv)

They did this in order to enable a section of agricultural producers to work on the erection of sumptuous churches and convents in the area.

In several other missionary zones the numerical increase of the neophytes is explained by the incorporation of new tribes into the original settlements, but it conceals the population decrease which occurred in the original Indian groups through recurrent epidemics. The most flourishing group of missions in Spanish America during the 17th and 18th centuries, the Jesuit Guarani reductions of the Paraguay-Uruguay rivers, suffered large demographic losses through epidemics. During the last three years of the second decade of the 18th century these missions lost more than 13% of their population, which fell from 121,357 in 1717 to 105,104 Indians in 1720. In the same reduction a smallpox epidemic in the 1730's almost halved the population, it fell from 138,934 Indians in 1731 to 73,910 in 1740. (xv) (49)

Thus the radical opposition between destruction and preservation of the Indians becomes relative. The interests of all sectors of the Spanish colonial society, ecclesiastics, crown and even encomenderos, rested on their preservation.

(xiv) Zubillaga, a Jesuit himself, acknowledges the drastic decline of the Indian population in the following estimation: Before the mission system (17th century) 50,000 Indians; 1740 22,000 Indians; 1764 7,000 Indians. (47)

(xv) Florescano has shown that in 18th century Mexico City the periodical agrarian crises and their effects paved the way for the spread of epidemics which devastated the Indian population and castes. (48) Therefore, as a working hypothesis it can be assumed that there is a strong causal connection between malnutrition and its causes, agrarian crises or, in the case of missions, the extraction of an economic surplus, and the devastating effects of the epidemics.
However, the materialisation of these interests in concrete institutions and practices, slavery and forced labour, taxes and tributes, tithes and the missionary system, entailed, throughout the colonial period, different degrees of destruction of the Indian communities and their members.

3. Finally, the similarity of the problems confronted by the regular orders in the 17th and 18th centuries throughout the empire and the experience gained during the previous years in the missionary field meant a certain homogeneity of principles and methods which the regular orders applied in each region according to the concrete situation. The system thus constituted, tended towards economic autarchy, administrative autonomy and cultural segregation of the Indians.

The Indians settled in the missions were usually exempted from personal service to the colonists and tribute to the crown, at least in the early stages. This, plus the natural geographic isolation of the missions, created a barrier between Indians and Europeans which was only overcome by the missionaries. However, once the Indians were pacified and settled in pueblos, the opportunity for exploitation of the Indian labour force by the colonists was an attraction which was too strong to resist. Therefore slave raids and the colonists' pressure to obtain forced labour from the pueblos were a constant danger. Because of this, segregation of the Indians from their European neighbours was a necessity reinforced by the regulars by means of strict rules. The most extreme form of this segregation was the case of the Guarani reductions, where, after serious clashes with the colonists in the 1720's, the presence of foreigners who did not have a licence from the father Provincial of the Jesuits was prohibited. This included
Europeans, blacks and alien Indians, ecclesiastics or not.

Consciously or unconsciously segregation was also extended to the language. Guarani was the tongue of worship and daily life in the reductions and books in this language were published there. In 1743 the crown half-heartedly ordered the teaching of Spanish in the schools of the Jesuit reductions '...to avoid... the calumnies...against the Company.' The linguistic barrier, developed by the friars in 16th century Mexico and by the Portuguese Jesuits among the Tupi Indians of Brazil, fitted well with the plans of segregation of the Jesuits of Paraguay and their conception of the Indians whom they considered to be 'children' who needed the paternal protection of the fathers of the Company. In other parts of Spanish America, though, the diversity of languages and dialects was so great that it was impossible to expand the use of a 'general tongue' among the Indians, so Spanish or bilingual instruction was the rule. (50)

The administrative organisation of the missions was shaped along the lines of the 'villages of evangelisation' of the 16th century Mexican friars, that is a limited form of self-government of the Indians with overall control held by the regulars. Each pueblo elected a municipal council which was in charge of the administrative and disciplinary tasks of the pueblo and, at the same time, supervised production. The missionaries and sometimes the royal bureaucrats, supervised the elections and had the right of veto. The tribal chieftains were either incorporated into this council or maintained as chieftains with some privileges, the final decisions, however, rested in the hands of the missionaries. (51)
Finally at the economic level, the missions aimed at becoming self-sufficient. After a variable period of settlement, organisation and technical instruction the pueblos were producing a variety of agricultural products, cattle and, in many cases, manufactured goods. Production was organised communally for a variable period (1½ - 3 days per week) and the rest of the time was spent on production for family consumption. The surplus generated by this communal work was spent on importing tools, raw materials or foodstuffs which were not produced in the mission, tributes to the crown when necessary, contributions towards the founding of new missions and the erection of churches and convents which were sometimes luxurious. If we add to this the unpaid military support the Indians gave to the Spanish armies against rebel Indians or enemies of the crown and the sporadic contributions in labour outside the pueblos, it is not difficult to surmise that, as has been substantiated for the lower California missions, there must have been a decrease in the level of nutrition of the Indians of all the missions which in turn provoked high mortality rates. This also explains the constant escapes of the Indians and the compulsory methods used by the missionaries to make the most reluctant Indians work. (52)

The regalist policies of the Bourbon kings of the second half of the 18th century were a severe blow to the segregation and relative protection which the missions of the regular orders had been offering to the Indians of the peripheral areas. The expulsion of the Jesuits in 1767 and the handing over of their missions to the less severe and less prepared remaining orders, along with the increasing tendency towards the secularisation of the regular doctrinas, meant the disruption of the segregation
of the Indians, which was now favoured by the crown, and the practical liquidation of the missionary system. By the beginning of the 19th century only the more remote Capuchin missions of the river Caroni in Venezuelan Guayana remained relatively closed to European influence. (53)

This analysis has shown that after a short period during which the lay Spaniards, encomenderos, were in theory in charge of the conversion of the Indians, the religious orders, animated by an apostolic zeal comparable to that of the early church, began a serious programme of conversion of the Indians. In the nuclear zones of America, Mexico and Peru, this conversion meant the destruction of the main ideological apparatus of their prehispanic states and its replacement by a Christian system of values and beliefs and its material embodiment, the Spanish church. During the first half of the 16th century the religious orders were concentrated in the nuclear zones, particularly in Mexico where they were very successful. In Peru and the peripheral areas, the lack of appropriate personnel, both in terms of quality and quantity, the political instability, the low level of social organisation of the Indians and their rebellious character prevented a rapid and massive Christianisation of the Aborigines.

From the late 16th century the religious orders began to lose the spiritual and temporal powers gained after the conquest of Mexico and the pacification of Peru. The royal bureaucracy and the secular hierarchy of the church, which were quickly established in these the richest centres of the empire, began to take control of the civil and spiritual affairs of the Indian communities and severely restricted the autonomy of
the regular orders. However, the continuous expansion of the empire towards the more peripheral areas and the royal legislation, which was now more inclined to a pacific conversion of the Indians, permitted the religious an increasing participation in and control of the new discoveries and projects of colonisation.

In frontier territories of strategic importance the religious orders, especially Franciscans and Jesuits, managed to create semi-autonomous communities which were controlled more by the religious than the local bureaucracy. Their relative success in creating a self-supporting economy, protecting the Spanish frontier and preventing the harsh exploitation of the Indian labour force was, however, temporary. After a variable period of encouragement and tolerance of the missions on the part of the crown, the missionaries had to hand the missions over to the combined interests of the royal bureaucracy, the secular hierarchy and the colonists. In this way the colonists gained access to the Indian labour force, the secular clergy to additional amounts of products subject to tithes, and the local bureaucracies took over civil control of the Indians which had previously been in the hands of the religious. Thus the missions, apart from being an effective and cheap means of controlling the always expanding frontiers, constituted a successful means of preparing the Indians, who were living in the lower stages of social organisation and production, for a 'more advanced' social and economic system. This transition, which permitted the retention of much of the culture of the Indian communities, constituted a mild form of exploitation. It did not prevent violent coercion but in the main worked through ideological persuasion. Obviously this provided a less traumatic and less
disruptive transition to class society than the military conquests which resulted in violent deaths, slavery, forced labour or, at the very least, spoliation of their lands, and heavy taxation. The combined interests of church and crown provided, through the missionary system, a check on the immediate interests of the colonists in these areas. In return the missions maintained a reserve of labour which they had trained and which they slowly handed over to the colonists; in this way the long-term interests of the colonists were also secured.
Chapter 9: The Church's Economic Resources

In this chapter we are going to look at the economic resources of the church in order to uncover the links between the dominant classes and the various sectors of the church in terms of common economic interests. This will clarify the alliances between the secular clergy and the encomendero class and also highlight the problems that arose between the regular orders, particularly the Jesuits, and the settlers in some areas. Such an analysis indicates that the church was deeply involved in and committed to the emergent economic and class structure. This involvement helps to explain the ambivalence of the church towards the Indians and the contradictions over social policy within the church itself.

In the initial stages of the conquest the church was heavily subsidised by the crown which financed the sending of friars to the colonies. In return the crown controlled the entry of regular clergy into America. (1) However, although the church continued to enjoy the crown's economic support it also developed its own means of developing its activities. The regular clergy received donations which in some cases they administered so successfully that they rapidly acquired wealth and property which was the envy of the richest colonists. The secular clergy which, as we have seen, established a hierarchical structure of bishoprics and archbishoprics, levied tithes and became increasingly independent of the crown economically. This, plus the financial difficulties of the crown and its increasingly regalist outlook, eventually led to a cleavage between the crown and the church in the early 19th century.

We will discuss the economic resources of the regular
clergy first and then go on to those of the secular clergy.

The Regular Clergy

The modest beginnings of the regular clergy in America were soon followed by a process of concentration of wealth by the orders. Outstanding in this respect was the Society of Jesus whose discipline, managerial capacity and influence among creoles permitted them to create a vast religious and economic organisation, consisting of a net of missions, schools, seminaries and haciendas. The Franciscans maintained their initial poverty during the colonial period in America and only occasionally acquired urban or rural property. However, they were not exempt from the spirit of lucre and received income in the form of alms and capellanías (chantries). Dominican and particularly Augustinian convents acquired vast stretches of land for agriculture and the grazing of livestock and at the same time they invested in urban property and loaned money at interest; sinodos, the friars’ wages which were paid by the crown, and capellanías provided additional sources of income. (1)

Of all the religious orders the economic activities of the nunneries have been submitted to the most extensive study and this allows us to deal with them in some detail.

(i) For instance, in the viceroyalty of Peru (present Ecuador, Peru, Bolivia, Paraguay, Argentina and Chile) in the early 17th century, both orders received an annual income of more than 75,000 pesos; this figure does not include the sinodos or the product of their haciendas. (2) It is difficult to ascertain the significance of this figure and others mentioned below. However, we can obtain an approximate idea by comparing it with 2 (arbitrary) indexes: the annual wages of the priests and missionaries and the price of black slaves in colonial Spanish America. In 1503 the wages of an American priest were fixed at 100 pesos p.a., by the 17th century they varied between 2-300 pesos and during the second half of the 18th century the crown was paying wages of 350-450 pesos to the missionaries of the north of Mexico. On the other hand, the price of a young adult black slave was some 80-100 pesos in the Antilles in the 16th century, the price increased in other more distant places. In the 18th century the price of a black slave could reach 400-500 pesos. (4)
The first group of nuns arrived in New Spain in 1540 and by the end of the 16th century there were 22 feminine convents in Mexico City alone. As with the other religious orders their beginnings in America were humble, however with the expansion of the wealth of landowners, miners and merchants, these nunneries were granted substantial donations which enlarged the prestige of the patron. The nuns themselves had to contribute a dowry of 3,000–4,000 pesos before being accepted into most of the convents. When the nun's family could not afford that sum they could mortgage their properties temporarily or impose a lien on them in order to pay the dowry. The nuns, most of whom belonged to the wealthiest creole families, were allowed a 'reserva', a sum of money which provided a personal income during the nun's life and was usually bequeathed to the convent on her death. (5)

By the 17th century, nunneries in New Spain possessed a significant amount of property and wealth with which to support their communities. Apart from the donations, dowries and reservas which continued to flow into the convents throughout the colonial period, nunneries received additional revenue from the 'investment' of this income. This investment consisted of the purchase of rural and urban property and 'censos' and 'depositos'. (ii)

(ii) Censos in Spanish America were of different types. Those which interest us in relation to the church's investments are: (a) the type where the owner of a property received a sum of money as a loan and had to pay 5% interest annually until he reduced the loan, he was able in the meantime to sell the mortgaged property and transfer the debt to the new owner, and (b) the type derived from a donation made to the convent in which case the owner retained the property but paid 5% of its value annually to the convent. The depositos, on the other hand, consisted of a simple loan of money for which a bondsman with a substantial property backing or a mortgage of the property of the borrower was necessary. The main difference between censos and depositos lay in the time given in each case for redemption, the depositos were granted for a limited number of years, while the censos generally continued for several generations. (6)
The acquisition of rural property varied considerably both regionally and in time. For instance the convents of Mexico City very rarely acquired rural property and if they did they got rid of it very quickly. Some provincial convents, however, acquired and maintained rural property which they administered themselves or rented out. (7) The administration of rural property does not seem to have been a secure source of income for the nunneries as the case of the convent of Santa Clara de Queretaro suggests. In this case, at the end of the 17th century, the Franciscan provincial chapter decided to sell the convent's rural property and give the money to the buyer as a censo, so as to receive an annual rate of interest of 5%. (8)

Urban property represented a more manageable investment and 60% of the capital of the Mexico City nunneries was invested in this way in the 1740's, however the importance of investment in urban property seems to have been mainly a phenomenon of the 18th century. (9) By the end of this century many convents declared that they did not have any rural or urban property and that they relied on censos and depositos as a source of income. As the administrator of one of Mexico City's convents suggested in 1787, it was more convenient for the convents to sell their properties to buyers who, instead of paying the value in cash, recognised a perpetual debt and paid an interest of 5% of this value per annum. In this way the convent would not have to pay for repairs or deal with bad tenants, but would have a secure income. (10) Another possible source of mistrust towards investment in property could have been the agrarian policy of the Bourbon kings in the late 18th and the beginning of the 19th century which attempted to curtail the
entails of the church and the nobility.

Nuns in New Spain, apart from discalced or Capuchin nuns who observed the vow of poverty rigorously and lived without any comfort or financial security, enjoyed a wide range of comforts and the exclusive character of the nunneries is indubitable. The reservas allowed some of them a handsome income which permitted them to have servants, black slaves, the use of fine materials and even to own the cell in which they lived. For example, by the end of the 1660's the wealthy and prestigious convent of Santa Clara de Queretaro contained some 600 people: 'less than 100 religious and more than 500 servants'. (11)

During the 16th and 17th centuries Indian and mestizo girls were not, as a rule, accepted and all successful applicants had to demonstrate that they descended from a 'cristianos viejos' family (i.e. non-Jewish) and they had to have a dowry or else profess in a capuchin convent. As a result convents were linked through family ties with the creole elite of New Spain, their daughters entering a convent was a mark of prestige and a way of avoiding a dishonourable marriage. (12)

This link with the creole elite is most noticeable in the character of the convents' investments. The funds of the nunneries were loaned to the big landowners, merchants, those religious orders with the greatest economic capacity and clergymen. This was typical of feminine convents' loans throughout the colonial period and was particularly marked in the 18th century when the convents, particularly the richest, tended to grant bigger loans to a small number of borrowers, merchants, nobles and miners, all of whom had a strong property base. In this way the nunneries of New Spain contributed to the economic stability of the dominant classes. (13)
The social and economic role of nunneries in the rest of South America seems to follow the same pattern. In Peru those daughters of the wealthy creole families who were unable to contract a marriage in keeping with their social station were concentrated in nunneries. Their life in the convents was not usually one of sacrifice since they possessed a vast number of servants and luxurious cells which they could transfer. At least in Lima and Santiago de Chile nunneries played a leading role as financial institutions. Hamnet suggests that, as in the Mexican case, the borrowers had a family or personal relationship with the administrators and abbesses of the nunneries and this permitted them easy access to the convents' funds. Thus, to provide their daughter's dowry was not only a charitable action but also a financial investment. (14) Nunneries, therefore, throughout Spanish America had strong links with the dominant classes both through their financial dealings and through ties of kinship; the two were often interrelated.

The Jesuits arrived in New Spain in 1572, which was relatively late and, despite the fact that the mendicant orders had been well established in the Mexican territories since the 1530's, they managed to open new missions in the north of Mexico as well as numerous colleges for the creole youth. To finance this effort they sought and found wealthy benefactors among miners, merchants, landowners and the secular clergy. Although the church as a whole was forbidden to buy property in the Indies, the Jesuits managed to overcome this problem through various devices from which deceit, political influence and even inconspicuous forms of bribery were not absent. The usual method was to buy land through a proxy who soon afterwards 'donated' the property to the Society or to their colleges. (15)
Jesuit colleges were not only educational centres, but also economic entities which concentrated and administered haciendas and sugar plantations and had investments in urban property and censos which other hacendados borrowed.

The Jesuits exhibited a marked tendency to invest in rural property. The land they owned in Mexico and elsewhere in Spanish America was concentrated in large haciendas managed by the Society of Jesus itself. Their colleges occasionally leased marginal lands of poor quality to small farmers, 'arrendarios'.

The formation of Jesuit wealth in Peru shows a remarkable similarity with the Mexican experience. As in Mexico, the Peruvian Jesuits inherited vast latifundia from big landowners and, at the same time, they purchased cheap neglected estates (haciendas a medio hacer) which they improved and expanded through capital investment. Given the impossibility of purchasing the land necessary to expand their haciendas the society had to rent lands and eventually to colonise virgin lands. As in the rest of Spanish America the haciendas were organised under the management of the colleges which worked as separate enterprises under the control of the province. In Peru, too, the Jesuits favoured capital investment in the haciendas over investment in urban property or in loans and censos. Thus, not even in the colleges which were richest in urban property

(iii) An analysis of their property at the time of their expulsion from New Spain shows this clearly. The capital of 11 colleges (out of 27 founded by the Society in New Spain) was 5,135,440 pesos, 3,765,288 (73%) of this corresponded to rural property (haciendas), 955,576 pesos (19%) to cash, furniture and others, 243,448 pesos (5%) to urban property to rent and only 171,137 (3%) to censos. (16)
did its value reach 10% of the value of the haciendas they possessed. Loans and censos which amounted to about 2 million pesos in the whole of Peru in 1767, also compared unfavourably with the more than five and a half million pesos invested in haciendas. If we consider that the Jesuits had, in the same year, a recognised debt of half a million pesos in loans we have to conclude that they preferred, or found it more profitable, to invest in agrarian production than in loans and censos. (18)

There were two main differences between the Jesuit enterprises in the different provinces arising from the rational use of the economic resources available. In Peru they concentrated on the highly profitable cultivation of sugar cane, which constituted 51% of the value of the haciendas, and vineyards (34%) which they commercialised and exported, and dedicated less resources to livestock, cereals and other crops. (19) The production of Mexican Jesuit haciendas, on the other hand, was more orientated towards the local markets. Thus the haciendas of the mining areas of the north specialised in the grazing of horses, mules and cattle in order to meet the demand for means of transport for the mines and the nutrition needs of the mine workers. Near textile manufacturing centres, such as Puebla and Queretaro, they developed wool production and by 1767 sugar plantations seemed to have lost their previous importance. (20)

The type of labour force which predominated in each province also differed. For instance in 1767, while the colleges of the Jesuits in Peru owned 5,224 negro slaves between them, the Mexican colleges did not own 200. This does not indicate greater wealth in the Peruvian province,
the opposite is in fact true, but an adaptation of the Peruvian
Jesuits to existing conditions. An Indian labour force was
unavailable in the places in which sugar plantations and vine-
yards were located which was mainly in the coastal valleys.
In the Peruvian sierra, on the other hand, Jesuits, as other
hacienda owners, relied on an Indian labour force which was
controlled through indebtedness or attracted by the rent of a
plot of land. (21)

The economic activities of the Jesuit province of
Paraguay follow the pattern described for Mexico and Peru.
Jesuits arrived in the La Plata region in the 1580's and by the
first two decades of the 17th century they were receiving
important donations from the wealthy people of the area, these
included encomenderos, church dignatories and some crown
resources derived from the tithes. These, along with the
resources of the Society formed the foundation of the lati-
fundia on which the Jesuits in the La Plata area were to base
their economy’. (22) This wealth continued to increase during
the 17th century through reinvestments of profits and new
donations, either for existing Jesuit colleges or for the
creation of new ones. As the scope of the educational and
missionary work of the Society increased so did the need for
religious and economic resources. The number of Jesuits in
the province shows a significant increase during the 17th
century. In the 1640's there were about a hundred of them,
by the 1660's this number had increased to 170 and in 1692
there were 249, 73 of whom were missionaries. (23) By the end
of the 17th century they owned more than 1,000 negro slaves,
they controlled about one-fifth of the cattle and more than
one-tenth of the mule exports to Peru, they probably possessed the best lands around the big cities and operated several textile obrajones. (iv) (24) As with the rest of the provinces in America the Jesuits’ exemption from the tithe and fiscal taxes created favourable conditions for successful commercial and productive activities. In addition in the province of Paraguay they controlled the Guarani missions. Since the Society was in charge of the commercialisation of the commodities produced by these reductions there was a considerable profit for them and they occasionally enjoyed the contributions in labour required by newly created colleges. (26)

The Jesuit province of Chile which was created in 1683, also exhibited a tight political linkage with the local royal bureaucrats and the consequent advantages. This plus donations permitted them to create a vast economic organisation whose capital at the time of the expulsion was some 3 million pesos including vast haciendas, manufactories, mills, shipyards and Negro slaves having a value of 71,503 pesos. (27)

The similarity between the economic and political activities of the Jesuits in the different provinces analysed is not fortuitous. The rules which governed their economic behaviour were, in general terms, laid down in the statutes of the order. Although their concrete activities were decentralised, which gave a high degree of freedom to the lower ranks of the hierarchy, the general congregation of the Society in Rome, chaired by the Father General, made the key decisions and permanently

(iv) Money invested in loans does not seem to have been economically important for the Jesuit province, although it played an important role as a way of maintaining influence over key colonial bureaucrats. For instance the governors of the area deposited their money in the Jesuit colleges and also borrowed from them. (23)
controlled the activities of the lower bodies through rigid discipline. (28) It seems that rational management accompanied by rigid discipline, both in religious and temporal affairs, permitted the Jesuits to obtain a higher return on their capital from investment in haciendas which they themselves administered than from any other form of investment. (29) This higher profitability can be explained by their semi-monoplastic control of the labour force and products in the haciendas' neighbourhood, this was a characteristic common to all big haciendas, and the social and economic advantages which were derived from their position as influential members of the church. These advantages included the occasional use of the Indian labour force free of charge, total exemption from the tithe until the 1660s and a reduced rate of 1/30 until 1766, and exemption from the 'alcabala' or sales tax from 1582 to 1754, that is practically throughout their stay in New Spain. (30)

Successful though the Jesuits' economic activities were, there were serious contradictions with other sectors of the church and society which helped to create a favourable atmosphere for their expulsion from the Spanish empire in 1767. Payment at a reduced rate or non-payment of the tithe by the Jesuits was a source of conflict with the secular clergy and particularly the hierarchy. As we shall see below the tithe was a vitally important source of income for the secular clergy and the Jesuits' refusal to pay it resulted in the alienation of this sector of the church. (v)

(v) For a long time the religious orders enjoyed exemption from the tithe, accordingly the lands granted to them in America by the crown were not subjected to the levy. With the expansion of their wealth and rural properties from the end of the 16th century onwards a vast quantity of lands which had previously (continued p. 492)
Another source of conflict arose from the reluctance of the hacendados to accept the privileges which were enjoyed by the religious orders. Much envy was provoked by the wealth of the Jesuits who were the most conspicuous landowners in the whole of Spanish America. (34)

In addition to this and unlike the nunneries and secular clergy, Jesuit wealth contributed little to the enrichment of the creole dominant classes since most of it was invested in agricultural production and not in loans to wealthy hacendados. In some frontier missionary zones there was also rivalry between the Jesuits and encomenderos over the control of the Indian labour force. (vi) The conflicts with the encomenderos and the

been subjected to the tithe became exempt. As a natural reaction, the archbishoprics of Mexico City and Lima complained to the king and became involved in a long legal dispute against the orders which only ended in the second half of the 18th century. (31) It seems that, in dealing with the tithe problem, the Jesuits used both political influence and compromise. In 1684, the college of Cordoba, the richest of the La Plata area, agreed to pay a nominal twentieth of its agricultural produce to the bishopric of Tucuman. Fourteen years later they rejected the petition of the Bishop of Tucuman, Mercadillo, and refused to pay the tithe in full and they were supported in the dispute by the Audiencia of Charcas and the king. (32) The conflict over the tithes reached a particularly acute point in Mexico during the 1640's when Juan de Palafox y Mendoza, Bishop of Puebla, tried to extract tithes from rural property held by the Jesuits outside the colleges. Although empowered with the favour of the king and the acquiescence of the Pope, Palafox, a fervent defender of the church and royal prerogatives (the tithes of the Indies belonged to the crown which granted them to the church and kept only a ninth for itself), was unable to cope with the influence of the Jesuits on the local civil bureaucracy and had to make a dignified retreat to Spain. (33)

(vi) The most outstanding of these confrontations was the one in Paraguay which went on for most of the colonial period but whose highest point was the rebellion of the Paraguayan 'Comuneros' in the 1720's and 1730's. The conflict involved the Jesuits and the Indians of the missions on the one hand and the encomenderos of Asuncion on the other, with sectors of the local bureaucracy supporting each 'party'. The conflict started in 1717 when governor Reyes of Asuncion on the advice of the Jesuits attacked (cont'd p. 492)
dominant creole classes, who were only too eager to acquire the large Jesuit properties, showed up the limitations of the Jesuits' influence and strategy which were dependent on the weakness of the crown. This eventually created the conditions which permitted their expulsion from Spanish America.

This brief overview of the economic activities of two branches of the regular clergy, the nunnery and the Jesuits, has shown that in general there were strong links between the dominant creole classes and the religious orders. In the case of the Jesuits the initial correspondence of interests gave way to contradictions by virtue of the fact that the Jesuits competed too successfully with the encomenderos in the sphere of agriculture. However, the fundamental point remains that despite internal contradictions which developed later the economic interests of the church allied them objectively with the encomenderos and the dominant creole classes. We will now turn our attention to the secular clergy.

(vi) ...and seized 70 Payagua Indians and handed them over to the Jesuits for further conversion, thus breaking a truce established by the previous governor 3 years before. The Indians' counterattack damaged the economy of the encomenderos more than that of the Jesuits whose stocks were protected by loyal Guarani Indians. Further reasons for conflicts between encomenderos and the governor was the levy of taxes on the encomendero elite of Asuncion and the governor's power to enrich himself. As a result, he was sued before the Audiencia of Charcas which, in an unfair trial, removed him from his office in 1721. His successor, Antequera, was a definite partisan of the pro-encomendero anti-Jesuit line. Reyes was imprisoned but managed to escape and won the approval of the Viceroy of Peru to retain his office. However, he met with armed resistance from Antequera and the encomenderos who expropriated Jesuit properties. The intervention of the Bishop of Asuncion in favour of the pro-Jesuit, royalist party, permitted them to have a partial victory in the 'Cabildo', which was representative of the most influential neighbourhoods of the city. However the encomenderos maintained their animosity towards the Jesuits and started hostilities again in 1731, expelling the Jesuits from Asuncion. Only the military intervention of governor Zavala of Buenos Aires and 6,000 Indians of the Jesuits' reductions managed to crush the rebellion. (35)
Secular Clergy

The income of the secular clergy had three main sources: the collection of tithes, the investment of capital in loans and censos and the ownership of rural and urban property. Except for the initial period of their existence when they depended mostly on the crown's funds, the tithe was their main source of income and we will deal with this first in some detail.

The Pope, in the Bull Eximie Devotionis in 1501, granted the Spanish crown the right to levy and collect the tithe in America. The crown in return had to ensure the construction of churches, the support of the clergy and the supply of the necessary articles for the cult. In the concordat of 1512, the king returned the tithes to the church but reserved one-ninth of it for itself and maintained key mechanisms of decision and control over its levy and collection. (36)

The tithe was only applied to the fruits of lands and animals (predial tithe), the personal tithe on wages, commercial profits and so on was not levied in America after 1530 and was not significant before that date. The products of fisheries, hunting and forest lands, gold, silver and other metals and pearls and precious stones were also exempt. On most agricultural and animal production the tithe was 10% with the exception of a few products where it was less. In theory the tithe was applied to everyone engaged in these activities whether they were Spaniards or Indians, Christians or not, but in practice there were many exceptions. (37) First of all the religious orders referred to above were exempt from payment and there were particular difficulties in exacting
the Indians' tithe. For instance, in Mexico the mendicant orders argued, against the bishops, that the collection of tithes would endanger the conversion of the Indians. The crown decided, in 1543-4, to exact payment from the Indians only in relation to non-aboriginal crops such as wheat and silk and the grazing of livestock. This situation was maintained throughout the colonial period, although the list of tithable products grew to cover all old world plants and animals. Caciques, who were considered to be Spaniards, had to pay tithes on all crops in the same way as Indians cultivating lands leased or bought from Spaniards. (38) In Peru, too, under pressure from the religious orders, the tithe was not applied to the Indians until the late 1560's when the Junta Magna (Council of officials and churchmen to decide on American religious affairs) commanded the exacting of tithes from the Indians on all products, an order that was applied by Viceroy Toledo in some of the provinces of the viceroyalty. However in 1596 the Audiencia of Lima commanded the Indians to pay tithes only on non-American products. This initiated a juridical dispute which continued at least until the first half of the 17th century; up to that date, the tithing system was different in each province of the Viceroyalty of Peru and included cases in which the Indians did not have to pay tithes at all. (39)

From the beginning of the 16th century the distribution of the tithe was standard throughout Spanish America. A fourth of it went to support the prelate and another fourth to the cathedral chapter, one-ninth went to the crown, two ninths for the payment of the salaries of parish priests and the rest (3/18) was divided in equal portions for the construction and repair of
cathedrals and churches and for the maintenance of hospitals. (40)

The Spanish church in America enjoyed a large measure of freedom in collecting the tithe. Once the total tithe yield of a bishopric reached a sum of which a fourth could cover the minimum amount due to the bishop, the crown's intervention in the collection was legally reduced to supervision, which was usually nominal. However all legal disputes concerning the tithe had to be presented to the royal tribunals until 1672. After this date each diocese was entitled to appoint two judges (jueces hacedores) who assumed total legal control over these matters, being at the same time judge, prosecutor and party since their income depended on the tithe.

The power of the legal apparatus of the bishoprics was soon matched in some dioceses by a more efficient fiscal system, which slowly replaced the farming out of the tithe to private bidders, a common practice during the 16th and 17th centuries, by direct collection. This meant the creation of a complex bureaucracy, accurate systems of accountancy and facilities for inspection, storage and transportation of foodstuffs, sales, issuing of deeds and promissory notes... etc. (41)

The vast powers enjoyed by the judges, the consequent increase in the numbers of people and products to be levied and the efficiency of the collecting machinery permitted the Mexican bishoprics to collect substantially increased amounts. (vii)

(vii) The archbishopric of Mexico City, whose revenue reached some 40,000 and 90,000 pesos p.a. by the end of the 16th century and 1668 respectively, was collecting 400,000 pesos p.a. in tithes in the 1770's and some 700,000 pesos p.a. during the 1780's. Estimates of the annual yield from the tithe for all the Mexican sees indicates that it was of some 2.4 million pesos, a sum slightly higher than the income from all ecclesiastical (regular and secular) property. In the viceroyalty of Peru the income of the whole clergy in 1793 amounted to 2,234,944 pesos, while the crown income the same year was 4,500,000 pesos. We do not know how much of this ecclesiastic income derived from tithes but it must have been a (cont'd p. 496)
Other revenues of the secular clergy included the income derived from investment of capital in urban and rural property but although this may have been important during the 16th and 17th centuries, by the 19th century it only represented a small fraction of the amount yielded by the tithe. (viii)

Another important source of income for the secular clergy was the institutions called capellanías (chantries) and 'obras pias' (pious works). The latter consisted of funds or property the rent or investment of which provided the necessary revenue for a charitable purpose, such as the maintenance of a hospital or orphanage or the dowry for a novice. The funds or properties were administered by special bodies created in each bishopric: the 'Juzgado de Capellanías y obras pias'. The Capellanía was a far more widespread practice and consisted of a sum of money, usually between 2,000-6,000 pesos, which was administered by the Juzgado. The income from this money was paid to the 'capellán', the holder of the capellanía or chantry. In return the capellán had to say a number of masses per year for the soul of the founder, who had the right to nominate the capellán and a list of possible successors who were usually relatives of the founder. As the capellanías were supposed to be everlasting, the founder

(vii) ...large part of it since the bishopric of Cuzco alone received 400,000 pesos in tithes in 1791. (42)

(viii) For instance in the 19th century, the archbishopric of Mexico city owned properties with an estimated value of just over a million pesos. This would have produced (at the rate of interest usual in colonial Mexico of 5% p.a.) an income of 50,000 pesos which compares unfavourably with the tithe yields of the late 18th or early 19th centuries. Even in 1834, after the wars of independence and after the tithes were declared voluntary by the government, tithes still yielded a larger amount (90,000 pesos). (43)
also nominated a list of patrons to appoint future capellanes once the list of successors had been exhausted. The capellanes had to be ordained or about to be ordained, and in the latter case had to appoint and pay another ecclesiastic to say the masses until he was ordained. Even in the case of an ordained priest he was entitled to appoint some ecclesiastic to replace him. As the chief financial adviser to the Juzgado in Mexico city pointed out in 1813: '...the many capellanías managed by the clergy were not really ecclesiastical benefices, but were rather trust funds which the wealthy had established for the use of their descendants...' (44)

The funds from pious works and capellanías were invested in loans at an interest rate of 5% to any person or institution offering enough financial security to guarantee the redemption of the loan; that is a mortgage on property. Apart from this the granting of loans and their amount depended on the funds available at the time. Since demand was high and old loans were renewable, accumulation of funds for large loans was not always possible and the amounts were usually 4,000 pesos which was the value of a capellanía. (ix) The total amount of money circulated by the bishoprics in Spanish America must have been impressive, since the number of capellanías in New Spain alone at the beginning of the 19th century was probably 10,000 and the archbishopric of Mexico City alone, which had some 30% of the capellanías in Mexico, circulated more than 3½ million pesos from capellanías and pious works. (46)

(ix) At least in one case (the Count of Regla) his debts to the Juzgado reached 70,000 pesos by 1806. (45)
The lending policies of the Juzgados and the church in general implied the mortgage of landed property, particularly haciendas. As a result of this, the bishoprics in Mexico, and to a lesser extent, the regular orders, by the end of the 18th century exercised almost complete control over most of the land in the colony. As a result of this the church could prohibit division of the lands of mortgaged properties and so immobilise land which would otherwise be divided and sold in a free land market. Another important effect of this policy was the concentration of the church's capital, which constituted most of the capital available in Mexico, in the hands of the propertied classes, thus favouring and consolidating the latifundia. Big landowners used their loans, not to improve the productivity of their haciendas, but rather to acquire more land in order to monopolise resources and markets and indulge in sumptuous expenditure on nobiliary titles, luxurious mansions and other symbols of prestige. (47)

The concentration of lands in the hands of the church and nobility and the brake that this placed on the creation of a land market and the improvement of agriculture eventually produced a reaction from the crown. (x) It decreed the forced sale of the

(x) The church in Spain also played an important economic role. By the 18th century the clergy composed 2% of the Spanish population but concentrated 1/7 of the grazing and farm land and almost 1/8 of the national income of Castile; this does not include the yield of the tithe and other levies. This situation began to be contested by the crown during the second half of the 18th century, a period in which enlightened high bureaucrats tried to implement reforms to stop the concentration of lands in the hands of the clergy and nobility, who, through entailments (mayorazgos) and ecclesiastical mortmain monopolised most of the cultivable land in Spain. As far as the church was concerned these efforts found expression in tentative reforms in the late 1790's and 1805 due to particularly difficult fiscal crises. (48)
property of beneficent religious organisations and brotherhoods and up to 15% of all ecclesiastical property, first in Spain and then, at the beginning of the 19th century, in America. As a large part of the church wealth in America was invested in loans and liens, the crown’s decree not only included the forced sale of church property but also the repayment of loans by the borrowers. The money was taken by the crown which in turn recognised the debt to the church and paid the corresponding interest. The law of 'consolidación de vales reales' as it was called, was applied in America from 1805 to 1809. The total amount collected in Mexico was just over 11 million pesos from which only 1.3 million pesos derived from the sale of ecclesiastical properties, the rest being payments of liens and loans owed to the church.

The Napoleonic invasion of Spain (1808) stopped the enforcement of the Law of 'Consolidation' to the natural relief of the church and its debtors. However, since the Spanish government stopped the payment of interest on the debt assumed in 1813 due to the war of independence, the church and the beneficiaries (capellanes) could only recuperate some money by selling their rights to financial speculators at a fraction of their face value. (x)i

(xii) If these restrictions on church wealth were stopped in America by the Napoleonic wars, in Spain it accelerated them. In 1808 Jose Napoleon took drastic measures against the clergy, alienating a large amount of the church wealth in favour of the crown. In 1812, the revolutionary Cortes, in order to fight the French troops, imposed heavy war contributions on the church. Although the restoration of the Spanish monarchy two years later eliminated this legislation, the crown had to accept an even more radical attack on church wealth when the liberals seized power (1820-23). This attack included the confiscation of the tithe, prohibiting the church from buying urban and rural properties, etc. (50)
This marked the beginning of the end of the mutually beneficial alliance between church and crown in both Spain and Spanish America and by the 19th century it was no longer feasible.

It is clear from our analysis above that the secular clergy constituted an important financial institution in Spanish America. It relied mainly on the tithe to finance its activities and, to a lesser extent, on capellanías and obras pías; the latter two forms of donation and their investment linked it closely to the dominant classes which benefitted from the loans made available to them. The church was therefore of vital importance as a money lending institution and helped to consolidate the dominant form of landownership. Thus, land was concentrated in the hands of a few large landowners and agricultural development was impeded.

This chapter has shown that the church in all its aspects was not only involved in the religious and ideological conquest of the Indians but, once it became established, was also important to the developing system of production, either as a source of finance or through direct involvement in agricultural production. This involvement clearly affected its policy towards Indian labour and its ability to effectively defend the rights of the Indians which, as we have seen, some sections of the church tried to do. We will now look more closely at the attitude of the church towards the Indians, bearing in mind both the ideological debates on their status and the church's various economic activities.
In this chapter we will analyse the attitudes of the Spanish American church to the harsher forms of exploitation of the Indian labour force. As we have seen above the church was itself involved in the economic system which became established in Spanish America. This necessarily compromised the position which the church enjoyed as protector of the Indians and, as we have seen, produced contradictions within the church itself over social policy towards the Indians. Thus there were contradictions between the regular clergy and the secular clergy with the latter tending to support the encomendero class and the former taking up a more radical position as regards the Indians. At the ideological level Indigenist trends within the church, which in the early years of the conquest influenced crown policy, conflicted with ideological positions taken up by other influential church leaders. Thus the position of the church in relation to the Indians was a contradictory one because of its own importance as an economic institution in Spanish America, because of its crucial role as part of the conquering state apparatus, particularly in the ideological sphere, and because of differing ideological and political stances within its ranks. Thus, although it started out in Spanish America as protector of the Indians this role changed with the establishment of the church hierarchy, its involvement in the new economic order and the development of a civil bureaucracy adequate to the task of limiting the exploitation of the Indians.

Our analysis concentrates on the early stages of the
Spanish conquest because, although the harsher forms of exploitation of the Indian labour force were felt at different times in different parts of the empire it was during the 16th century that they were most widespread and were unchecked by the control of the incipient local bureaucracy. This meant that the ecclesiastics in America played a political role of enormous importance in moderating the treatment of the Indians by the encomenderos; this role was later taken over by the civil administrative structures.

We will look first at the political role of the church as protector of the Indians and then go on to detail the positions taken up in practice in various regions of Spanish America on the different forms of exploitation of the Indian labour force.

Ecclesiastic and civil complaints about the conditions of work of the Indians and their maltreatment were expressed throughout the colonial period. However, it was only early on in the 16th century, particularly during the period from the 1530's to the 1570's, that the action of the church, both as policy maker and as moral enforcer of the royal laws, had a significant influence on the regulation of relations between the Indians and the colonists. These quasi-political powers devolved, to a large extent, from the power granted to the ecclesiastics to control the abuses of the encomenderos and check the power of the civil bureaucracy, which was at first undifferentiated from the encomenderos. The decrease of the political impact of the church on colonist/Indian relations was a result of the partial withdrawal of this authority by the crown at a time when the local bureaucracy had become relatively efficient.

From the late 1520's until the 1560's most bishops
appointed to the American sees were simultaneously appointed 'protectors of the Indians'. Friars like Las Casas and others later on became protectors but the post was primarily controlled by the prelates until the 1560's. By the end of the century secular protectors had almost totally replaced ecclesiastics in the office.

The protector, until 1531, was supposed to have wide authority over Indian affairs, he regulated, judged and imposed penalties including imprisonment. A royal order that year limited these powers to obtaining information about the maltreatment of the Indians and imposing a punishment consisting of fines up to 50 gold pesos or 10 days in jail; the accused had the right to appeal to the governor who was also in charge of criminal cases. Thus ecclesiastical protectors were under the jurisdiction of the civil power and became simply attorneys of the Indians. However, ecclesiastics retained, at least in theory, the right to decide the justice of wars of conquests, to intervene in the assessment of the tribute to be paid by the Indians and to directly inform the crown of the colonists' abuses.

During the last decades of the 16th century bishops and clergy in general lost all control over Indian affairs which came under royal jurisdiction with the exception of purely spiritual matters. From 1560 onwards several royal orders

\[\text{(i) That is in the core areas of the empire where significant urban centres and well organised bureaucracy existed. We have seen (chapter 8) that in marginal zones the missionaries enjoyed a high degree of freedom in civil and ecclesiastical affairs until the 18th century but always with the agreement of the civil authorities.}\]
banned the use of ecclesiastical penalties for the maltreatment of the Indians while in 1574 the patronage laws clearly put the clergy under the control of the crown and the civil bureaucracy. (1)

**Indian exploitation**

The theological disputes over the condition of the American Indians and the royal legislation resulting from them did not necessarily mean a change in the real situation of the Indians. Royal orders and church principles dealing with the aborigines were only enforced in America under certain conditions. The extent of their observance depended on the balance of forces in the area concerned and especially on the political position of the royal bureaucracy and churchmen, whose power served either to weaken or reinforce royal legislation. As far as the church is concerned we will take into account its behaviour in relation to three main forms of exploitation of the Indian labour force, slavery, encomienda and repartimiento. They were by no means the sole forms of exploitation of the Indians in the 16th century but they represented the most extensive forms of organisation under which the aborigines were forced to work throughout the Indies.

In the absence of an official policy on the part of the church towards these forms of labour which could be followed uniformly by the ecclesiastics, the Indian policy of the church can only be evaluated by looking at the concrete political positions which bishops and other influential churchmen or church bodies assumed towards them. (ii) These positions were

(ii) There is no satisfactory study of the church's Indian policy covering Spanish America as a whole during the colonial period. The most complete study we know is Dussel 1970, this is however biased in favour of the American ecclesiastics. With the help of other partial studies mentioned in the bibliographical notes we have tried to present a more balanced account. The coverage of ecclesiastics is partial but, we hope, representative.
contradictory and were the effects of the changing economic, political and ideological conjuncture. We will look first at Indian slavery and then go on to discuss black slavery, encomienda and repartimiento.

We have seen elsewhere that Indian slavery was widely practised up until the 1550's by the Spanish colonists and the attitude of the church towards it was highly controversial. For example, in the higher echelons of the civil bureaucracy two ecclesiastics, Bishop Ramirez de Fonseca who was in charge of American affairs from the 1490's to 1516, and Cardinal Cisneros, confessor to the queen in the 1490's and later regent of Spain (1516-17), represented two different positions on the colonial problem in general and slavery in particular. Cisneros, a leading figure in the Spanish church hierarchy at the turn of the century, assumed a moderate approach. When he was confessor to the queen in 1495 he moved her conscience and put a stop to the trade in human beings until a meeting of theologians could decide on the justice of such a trade. Later on, in his regency period, he ordered that the human traffic on the Venezuelan coast which was crucial for the interests of the colonists of Hispaniola, should be stopped, although at the end of his regency under pressure from the colonists he authorised it again subject to certain conditions.

(iii) It seems to us necessary to include a discussion of the church's attitude towards black slavery in order to understand more fully its social policy towards Indian slavery.

(iv) These were that if Indians already enslaved by their fellow Indians were purchased, they should be treated as naborias (non transferable slaves), and the authorisation of the Hieronimite friars, at the time governors of Hispaniola, had to be sought in order to trade.
Fonseca, more a politician and protege of Ferdinand V than a churchman, showed no moral preoccupation with the fate of the Amerindians. As an able administrator of Ferdinand's economic interests he knew of and approved the contracts (capitulaciones) between the crown and private entrepreneurs which included, among the 'commodities' to be traded, Caribbean Indians. His meteoric ecclesiastical and political career reached its virtual end precisely with the death of Ferdinand and the regency of Cisneros. (3)

In Spanish America the areas that were most severely affected by the slave raids were the Minor Antilles, the centre-north of Mexico, Central America and Caribbean South America. After the New Laws of 1542 which banned the slave trade a few areas continued to suffer from Spanish slave raids, these were the south of Chile, the north of Mexico and those parts of Venezuela inhabited by the Caribs. From the 1550's onwards the slave trade continued but was limited to Africans, the Indian population being subjected to other forms of exploitation such as the encomienda, repartimiento and other servile or semi-servile institutions.

We will consider the church's attitude towards slavery by region as it was very much influenced by the practices prevalent in different places at different times.

In the Antilles, which includes Santo Domingo, Puerto Rico and Cuba, there were contradictory attitudes expressed by various sectors of the church during the first few decades of the 16th century. The region was the centre of extensive traffic in Indian slaves during this period and the attitudes of the earlier bishops were in conformity with the slave raids. The first bishop to denounce the traffic in slaves was
Ramirez Fuenleal of Santo Domingo (1529-31) and he was followed by his successor Fuente Mayor (1539-54).

The tolerant attitude of the early episcopacy in the Antilles contrasts with the militancy of the Dominican convent of Hispaniola who were enemies of Indian exploitation and denounced the oppression of the Indians.

The Hieronimite monks who governed Hispaniola from 1516-19 also expressed ambivalent positions with respect to slavery. They initially forbade human traffic in the whole of the Caribbean but later, under pressure from the colonists, recognised the convenience of the 'rescate', the purchase of Indian slaves from Indian owners, and promised the colonists that they would intercede with the crown on their behalf. (4)

In New Spain the position of the church was again ambivalent with different sections of the church adopting different attitudes. Some notable churchmen were against slavery. For instance Bishop Fuenleal, who was acting as president of the second Mexican Audiencia from 1532-35, appealed for the total abolition of Indian slavery, and Bishop Garces of Tlaxcala (1528-42) interceded with Pope Paul III in favour of protecting the Indians against enslavement. This intercession and Friar Minaya's lobbying resulted in the bull 'Sublimus Deus' and a papal brief which condemned slave raiders to excommunication. (v) As in the Antilles groups of friars denounced the slave trade to the civil authorities, particularly

(v) In Chapter 7 we pointed out that due to the action of the crown the brief remained inoperative. A similar bull was obtained by the Jesuits of Paraguay against the Portuguese slave raids on the reductions but due to the physical threat of the Portuguese colonists to the Jesuits of Sao Paulo they abandoned the use of the bull. (5)
after the promulgation of the New Laws banning it.

However, an important sector of the Mexican church regarded punitive slavery for rebel Indians as a just solution and when discussing the enforcement of the New Laws in Mexico they argued accordingly. Among them were members of the Cathedral chapter of Mexico City and the cleric Maraver who was later bishop of Guadalajara (1548-51). Bishop Zumarraga of Mexico City (1528-48), the leading church authority in early New Spain, had a moderate position. In theory he was opposed to Indian slavery but he privately supported punitive slavery for rebel Indians and at the end of his life he still possessed several Indian slaves. (6)

In the territory of the Audiencia of Guatemala, which included the bishoprics of Leon de Nicaragua, Comayagua-Honduras, Guatemala and Chiapas, there was a similar confusion and we cannot find a uniform position expressed on Indian slavery. Bishops Pedraza and Valdivieso, of Honduras and Nicaragua respectively, took the protection of the Indians seriously and denounced the slave trade both in letters to the king and in their sermons. Because of the effectiveness of Valdivieso’s denunciations to the king the colonists assassinated him and started an unsuccessful revolt.

No less extreme was Las Casas, the first bishop of Chiapas (1545-7). In sermons and letters to the king he denounced the persistence of slavery in his diocese and in Yucatan and Guatemala. Because of the uncooperative attitude of the civil authorities towards stopping the trade he wrote his 'confes-

ionario'. In it he ordered the clergy of his diocese not to grant absolution to colonists owning Indian slaves, even in the case of purchase, unless they freed them and gave them
compensation. At the same time he threatened to use or used excommunication and other ecclesiastical penalties against those who engaged in or tolerated Indian slavery or other abuses.

In contrast with the attitude of these prelates, Bishop Marroquin of Guatemala (1534-63), who was as radical in his approach to Indian slavery as his colleagues in the first years of his prelacy, soon became reconciled with the institution. After asking the crown to ban Indian slavery in the 1530's, during the late 1540's and 1550's, that is after the crown had made a commitment to eradicate the institution, he allowed the colonists to take new Indian slaves, used Indian slaves in the erection of a church and obstructed the anti-slavery campaign of the president of the Audiencia of Guatemala, Licenciado Cerrato (1548-55). By this time Marroquin had been integrated into the dominant creole class through family links as well as through his involvement in economic activities which goes some way towards explaining his changed position.

The anti-slavery campaign which was energetically carried out by Cerrato resulted in the freeing of all slaves who had been illegally acquired. When confronted by this Marroquin did not argue for the retention of the Indians as slaves but for their assignation to old or new encomiendas.

(vi) C. Sainz, an admirer of Marroquin asserts, on the contrary, that 'Marroquin was since then a decided critic of legal Indian slavery, although he sometimes opined that owners in good faith should be treated with certain understanding and tolerance, provided that the traffic was abolished altogether.'

(vii) Similar reasoning was adopted by the general comissary of the Franciscans of Guatemala. He thought that Cerrato's measures were too precipitate, so proposed that the crown liberate the Indian slaves working in the mines after a year or two so as to allow the owners time to replace them with negro slaves. Similarly Indians working in agriculture should be liberated but would remain at the service of their ex-owners, paying tribute in the form of personal service, and slaves working in industry should work for their owners for a certain length of time.
In the other areas that were severely affected by slave raids viz. the Caribbean coast from Venezuela to Panama which was under the seas of Coro, Cartagena, Santa Marta and Panama, we find a wide range of attitudes on Indian slavery among the prelates. For instance Bishop Quevedo of Panama (1514-18) not only authorised the export of Indian slaves from his bishopric to the Antilles but also defended the institution at the theoretical level against Las Casas in a theological junta in Barcelona in 1519. Similarly Bishop Bastidas of Coro (1532-42), despite his denunciation of the enslavement of pacific Indians, in the 1530's directed slave raids in Lake Maracaibo and participated in the profits once he had assumed the office of governor in 1539. (9)

In contrast Bishop Torres of Panama (1547-54) followed Las Casas' uncompromising line and used spiritual sanctions against slavery and other abuses. His extremism provoked the anger of the colonists and the censure of the royal bureaucracy and the Archbishop of Lima, his ecclesiastical superior, who sent him back to Spain. Between these two extremes, Bishop Tobes of Santa Marta (1533-34) authorised the conquest of several tribes in the area, and therefore legitimised their enslavement, while his successor, Angulo (1538-42), permitted the distribution of 'naborias' (non-transferable slaves) to the conquerors. Both however, denounced the more blatant abuses of the colonists to the crown. The religious communities and 'doctrineros' in the area remained under the control of the colonists until the 1550's and ecclesiastics who dared to oppose the brutalities of the colonists were persecuted and eventually sent back to Spain. (10)

It is clear from the above that until the 1550's the role
of the church was ambivalent towards the Indian slave trade. The early denunciations of the atrocities of the colonists in Hispaniola did not begin to be echoed by significant sectors of the American church until the 1530's. From then onwards prelates and communities of religious played a more active role in stopping or regulating the trade. However, the pressures of the colonists plus the compromising attitude towards and sometimes the involvement of the local authorities in the trade, made this effort ineffectual and forced the Indigenist churchmen into retreat or compromise.

The initial dependence of the church on royal resources made it extremely vulnerable to the interests of the colonists and their pressures. At the time the church's income was low, tithes did not cover the minimum expenditure of the clergy and had to be substantially supplemented by the crown. The civil bureaucracy had, therefore, the means to manipulate the action of the clergy and could threaten to withhold payments to dissenting clergy. Another factor was that the 1,800 pesos guaranteed by the crown for service as bishop in America was considered to be very low by the Spanish hierarchy and, during the first decades of colonisation, it was very difficult for the crown to find qualified ecclesiastics to occupy the American sees. In this situation it is understandable that some prelates and lower clergy, such as Zumarraga and Marroquin, had to find the resources to sustain the standard of living, which corresponded to their rank through private business. (11) This in turn made the prelates and clergy in general more receptive to the demands of the colonists with whom they shared a community of interests or class solidarity; this will be brought out more clearly when we analyse the encomienda system.
In order to fully understand the church's social policy towards Amerindians it seems to us necessary to introduce a comparison with its attitude towards the African slave trade. This trade began on a significant scale in the 15th century, with the maritime expansion of the Iberian kingdoms, and extended throughout the period under study and beyond. The Spanish crown, deprived of African continental territories from 1479 onwards, depended on foreign merchants to supply the Spanish market with slaves and to satisfy the increasing demand of the American colonies. The latter were depopulated in certain areas, such as the Antilles and the coastal tropical areas and, faced with severe royal regulations restricting the use of the Indian labour force, had to complement or sometimes replace their manpower altogether with Negro slaves. Despite the fact that the crown disapproved of the trade because of its foreign control and consequent loss of bullion for the Spanish economy, it was forced to accept an increase in the number of slaves imported. (viii)

The attitude of the Catholic church during the period was totally acquiescent. A papal bull of 1455 granted the Portuguese the right to attack and enslave saracens, pagans and other unbelievers in Africa. The Spanish and American churches accepted the slavery of the blacks as a fait accompli and only a few ecclesiastics condemned it. (ix) Their complaints

(viii) See Table 2, chapter 3.
(ix) Among them were theologian Domingo de Soto, Archbishop Montufar of Mexico and Las Casas in his later writings. Las Casas in his early activities in the Indies recommended - as many other ecclesiastics did during the period - the introduction of Negro slaves to alleviate the working conditions of the Indians. Many others legitimised the trade and freed slave owners and traders from all moral responsibility. Among them were the authoritative Vitoria, a theological council summoned in 1553 by Charles I, and the Jesuit Tomas Sanchez. In Portuguese America the only
which were mostly theoretical and uncoordinated, did not give rise to a movement to defend the blacks comparable to that brought about in the case of the Amerindians.

Churchmen as individuals and religious orders as institutions possessed black slaves throughout the colonial period, either as servants or labourers on their haciendas and plantations. The Society of Jesus, well known for its efforts to rescue Indians from slave raids and, when possible, from the encomienda system, ranked among the largest slave owners of Spanish America. (13) Paradoxically, the Jesuits of Spanish America seem to have made the most relevant contribution to evangelical work among blacks and to their physical betterment. The instructions for the treatment of the slaves on Jesuit haciendas apart from their christianisation emphasised family life, reproduction, training in technical skills, adequate food, kind treatment and health care, all of which set them apart from the normal hacienda owners. (x) During the 17th century the Society seriously undertook the conversion of Negro slaves. In Cartagena, the main port of entry for the slave traffic to Spanish America at the time, Jesuits christianised and practised Christian charity with the newly arrived 'cargoes' of African slaves. The attitude of the Jesuits...

(ix)...serious action against black slavery seems to have been the complaints about the legality of the trade by 2 Jesuits who questioned the views of their superiors who supported the trade. The question was remitted to the theologians of the order in Lisbon who decided in favour of the continuation of the trade and the expulsion of the 'rebel' brothers from Brazil. In Western Africa itself, the church, which was largely maintained by the profits of the slave trade, had a very poor record. Committed and successful missionaries were the exception and the majority of the clergy 'were more active in the slave trade than in saying mass or doing any priestly office'. (12)

(x) The motivations for this could have been humanitarian or economic rationalism or both. Mellafe asserts that one of the Jesuit haciendas in Cordoba bred Negro slaves, either to satisfy their own needs for a skilled labour force or to satisfy the slave market in Potosi. (15)
involved in these activities is considered by Bowser to be 'one of the best moments of the church in the New World' and reveals all the limitations of church ideology and practices in relation to the trade, or at least those of the most socially progressive sector of the church, the Jesuits. (14)

The Jesuit Alonso de Sandoval was one of the first to participate in this evangelisation campaign and, after several years of work with the slaves, wrote his 'De Instauranda Aethiopum Salute' ('On Saving the Negroes'). The book, which was published in 1627, served as a missionary 'handbook' for religious work among slaves in the 17th century and was widely diffused by the Society of Jesus. For Sandoval, Negroes, the descendants of Ham, had inherited the punishment of being perpetual slaves. In discussing the legality of the actual enslavement of natives in Africa he recognised that there might be cases of illegal enslavement, that is other than self-sale, being taken captive in a just war, being born into slavery or being punished with slavery for some crime, but since there was no way of ascertaining whether this was the case he tacitly accepted the status of slave for the Negro. However, he stated that the slave is capable of spiritual salvation and must therefore be a concern of the Church. With respect to the conditions of life of the slaves, of which he had first hand-knowledge, he condemned the brutal treatment of the Negroes recommending that the owners set a good example through kindness and physical and spiritual well-being. Thus Sandoval and the progressive churchmen, who basically shared his point of view, worked within the framework of the institution of slavery, recognising its legality and proposing humanitarian improvements in the treatment of the Negroes. (16)
Despite the material inferiority of the Negro slaves, both in terms of crown legislation and church ideology, their 'equality before God' and their acceptance into the Christian flock provided them, at least in theory, with some benefits. For instance, according to canonical and civil law, slaves were free to marry the partner of their choice and remain united as a family, even if both were slaves of different owners. Any breach of these laws could be successfully appealed against by resourceful slaves to the ecclesiastical tribunals. Slaves were also supposed to rest on Sundays and religious festivals and this measure was eventually enforced.(xii) However, there seems to have been a weak relation between the process of manumission and the church's ideology and practices. Finally the indoctrination of the slaves by the church, although rare, represented an important step towards their integration and adaptation to colonial society and was thus recognised by the colonial authorities.

Viceroy Toledo of Peru, for example, thought that the security of the viceroyalty which was faced with an increasing slave population and the consequent danger of revolts, would be reinforced by the Christianisation of and teachings of the doctrine among the negroes. The church's ideology, which

(xii) For Klein the church in Cuba played a vital role in 'encouraging and maintaining the impetus to voluntary manumission ...' and was also instrumental in ...'cartacian', by which slaves purchased their own freedom'. Bawer notes, for the case of Peru, that the titles of voluntary manumission usually emphasised the Christian love and charity of the owner, however he does not derive from this fact any relation between manumission and the church. Johnson asserts that '... the colonial societies in Latin America tolerated manumission, but the process was not encouraged actively by
expressly asserted that the slaves' duties were to serve their masters with loyalty and patience so as to receive a reward after death, fitted well with the interests of the dominant classes of colonial Spanish America.

The token manumissions which were half-heartedly encouraged or at least respected by the church, together with charity work, intervention in the regulation of family life, observance of Sunday rest and the organisation of the negroes' social life into the form of religious brotherhoods, performed an important function of social control. It also contributed to the acquiescence of selected sectors of the slave population thus making escapes and revolts more unlikely. Needless to say these ideological mechanisms were only complementary to repressive means of control of the slave population such as physical punishment by the owners, capture of runaway slaves by bodies in charge of this activity and, in extreme cases, the use of the army to smash serious revolts. (19)

We will now examine the church's attitude towards the system of encomienda which has been analysed in detail in Chapter 3. It is important to remember that the institution underwent a series of changes during the three centuries of Spanish domination, and that its importance as an economic institution decreased from a peak in the middle of the 16th century to a virtually 'natural' death at the end of the 18th century.

(xii) cont.

... and that ... the economic and demographic characteristics of each community determined both the volume of manumission and those segments of the slave population that would benefit from it'. A similar conclusion in relation to the church's intervention in manumissions can be derived from Bowser's study of manumissions in Lima and Mexico and Sharp on Colombian Choco. (18)
Thus the initial 'encomienda de servicios', in which exploitation of the Indians was only limited by the favour of the crown which had the power to revoke grants of Indians to favour other colonists or to punish disloyalty, was gradually circumscribed by several measures to protect the Indians. For instance from the 1530's the crown imposed fixed tasas (tribute assessments) for the encomendero to exact from the Indians which reduced the previously unlimited exactions of the encomenderos. And the New Laws and their partial enforcement in certain areas enormously limited the power of the encomenderos by a) transferring encomiendas to the crown, and b) suppressing the personal service (labour tribute), which until then had been exacted by the encomenderos, and replacing it by assessed payments in cash or kind. During the 16th century only the core areas of the empire, Mexico and Peru, were affected by these measures. In other areas, personal service remained in force until the 17th or 18th centuries; Venezuela is an example of the former, Chile, Paraguay and Tucuman of the latter.

The attitude of the church towards encomienda, as with slavery, was ambivalent. However it is clear that the American clergy in general accepted the institution and regarded it favourably as long as it included regulations which limited the most obvious abuses. Bishops and friars demanded and/or were ordered to assume the task of assessing the quantity of labour due from the Indians to the encomenderos, which in itself represented progress in relation to the previously unchecked exactions of the encomenderos. In the same way they intervened to suppress the use of encomienda Indians in the heavier and more dangerous tasks such as mining and carrying.
However, the transformation of the encomienda from an agency which appropriated and directly controlled Indian labour through labour tribute to one which distributed the Indian surplus produce in the form of money or kind among the colonists under the control of the crown was severely resented by the American church. This was because the church to a large extent supported the demands of the colonists for the retention or control of the Indian labour force. The promulgation of the New Laws and their later partial enforcement were a serious royal attempt to bring the encomienda under the control of the crown. At this time, the late 1530's and 1540's, there was an acute confrontation of interests between the crown and the colonists involving the political and economic rights of the crown and those of the colonists over the Indian labour force. The Spanish dimension of this conflict has been analysed above (see Chapter 7), so we will deal here with its American dimension and the role of the church in relation to the encomienda. We will again discuss the different geographical regions separately.

In Mexico the church almost unanimously rejected the suppression of personal service ordered by the New Laws. Two of the three resident bishops (xiii) and the chapters of the three religious orders operating there in 1544 argued before the crown that Indians were well treated by the encomenderos, that the only way to retain Spaniards in the country was through the granting of Indians to them, that the presence of encomenderos was indispensable for the security of the

(xiii) There is no information available on the attitude of the third bishop.
country because of their military duties and, finally, that Indians would not work without compulsion and its removal would damage the economic prosperity so far generated. They concluded by arguing that the stability of the country could only be made durable by granting encomiendas in perpetuity.

The religious orders took up a similar position and sent delegates to Spain to lobby against the New Laws as did the colonists. They succeeded in convincing the king to revoke the clause which ordered the reversion of encomiendas to the crown at the death of the present holder, although the clause suppressing personal service was retained. At the same time, the Mexican church arrived at a workable arrangement which combined the humanitarian task of protecting the Indians, with an Indian corvee system under the control of the crown and legitimised by the colonial system's need for economic support. The Mexican church, together with the rest of the Spanish order in America, rested directly or indirectly, on the Indian labour force and many bishops and religious orders were themselves encomenderos. Thus the immediate abolition of the encomiendas which had been granted to each of the three Mexican bishops and some religious communities decreed by the New Laws reinforced the church's militant solidarity with the encomenderos. (20)

In the Audiencia of Guatemala the New Laws were given a more varied reception from the church. The bishop and the cathedral chapter of Guatemala rejected the suppression of the encomiendas proclaimed by the legislation. However, in the other three bishoprics of the Audiencia the newly arrived prelates and a substantial reinforcement of friars who had been brought by Las Casas, opposed encomienda through sermons
and denunciations to the king, and enforced ecclesiastical penalties against encomenderos. The firm attitude of the prelates resulted in the bitter opposition of both the colonists and the civil bureaucracy, the assassination of Bishop Valdivieso by the encomendero class in 1550 and the virtual escape of Las Casas to Spain in 1547. Only the decisive action of the new president of the Audiencia, Lopez de Cerrato, managed to eliminate Indian slavery and personal service in the face of the obstructive efforts of Bishop Marroquin of Guatemala. (21)

In the area of present Colombia and Panama the clergy took an active role in the protection of the Indians. Bishop Torres of Panama was practically dismissed for his uncompromising attack on the encomenderos' abuses of the Indians. Bishop Juan del Valle of Popayan (1548-60) took an equally radical position against the institution. In the two diocesan synods celebrated in 1555 and 1558 under his leadership the Popayan church ruled that encomenderos had to restore to the Indians all the exactions that they had unjustly exacted in tributes or personal service or suffer the penalty of excommunication. All wars of conquest were declared unjust even if the Spaniards were attacked by the Indians. Finally these synods condemned the encomienda as contrary to the universal good of the republics and the papal concession.

In contrast the Synod of Santa Marta (1556) under the prelacy of Juan de los Barrios (1553-69) was more conservative. The restitution to the Indians of excesses in tributes was referred to the Council of Trent and they did not dare to condemn personal services. In the diocese of Cartagena Bishop Simancas (1560-1570) was the first to condemn personal services and confront the encomendero class and, as a result,
had to give up the bishopric due to the pressure of the colonists. Among the religious communities operating in the area in the 1550's and 1560's many radical friars played an active role in the protection of the Indians. They asked for the suppression of personal service and the restitution to the Indians of the excesses in tributes. Although they were only demanding the enforcement of royal legislation they did not have the support of local officialdom and suffered from the suspension of financial aid, deportation and general hostility. (22)

Finally, in Peru, the attitude of compromise prevailed. Archbishop Loaisa of Lima (xiv) (1543-75) after the defeat of Pizarro's rebellion in 1548, was charged with the assessment of the tribute to be paid to the encomenderos by the Indians. It was a heavy burden for the Indians and included large amounts of money, produce and personal service performed on a rota system without payment. Furthermore, during the interim rule of the Audiencia (1552-55) which tried to abolish personal service, the Archbishop interceded to revoke the measure in order to calm down the encomendero rebellion of Hernandez de Giron (1553-4).

Among secular and regular clergy compromising or even pro-encomendero positions prevailed. According to Lockart, the encomendero rebellion of Sebastian de Castilla (1553) in defence of the encomienda system and against the Audiencia was

(xiv) The other two bishops of the area Juan Solano of Cuzco (1544-60) and Diaz Arias of Quito (1550-62) showed little interest in the protection of the Indians and their conditions of work. (23)
hatched in the Dominican monastery of Cuzco'. A vast sector of the Peruvian clergy had not only familial links with the encomenderos, but also shared their economic interests by administering the colonists' enterprises or running businesses of their own.

Among the friars, particularly the Dominicans, a pro-Indian faction did, however exist. Domingo de Santo Tomas, for instance, provincial of the Dominicans of Peru and later bishop of Charcas (1562-70), was firmly opposed to the encomienda system. In the late 1550's he organised the Peruvian Indians to authorise Las Casas to offer the crown, on their behalf, a large sum of money to abolish the system altogether. This represented the counter-attack of the Indigenist party to the offer of money made by the encomenderos to the crown to make encomiendas hereditary in perpetuity. (24)

We will now briefly discuss repartimiento which developed later than encomienda. The limitation of the access of the colonists to the Indian labour force produced by the suppression of personal service brought about an acute shortage of labour in the colonies affected. The Indians, liberated from the burden of personal service, limited themselves to working their lands and paying their tribute in money or produce, with occasional recourse to wage labour to cope with the tribute demands. The colonial economy, though, required a higher amount of labour power in order to operate the silver mines, construct civil and religious works, and feed and clothe the basically non-producing Spanish population. To obtain this supply a rota system of Indian forced labour, repartimiento, was imposed in the second half of the 16th century in Mexico and Peru and, to a lesser extent, in other areas.
As far as the church was concerned, the third Mexican Council (1585) condemned the repartimiento system because they considered it to represent a severe limitation of human freedom and because the wages of repartimiento Indians were well below the wage level in the labour market. In 1594 the Mexican Franciscan provincial condemned the system on similar grounds. Despite this, ecclesiastics, parish churches, convents and bishoprics requested and obtained, throughout the colonial period, Indians in repartimiento in the same manner as any other colonist or agency, provoking, in turn, the same bitter complaints from the Indians.

In Peru the archbishop of Lima and the prelates of the religious orders were consulted by the civil authorities in the 1560's about the morality of the repartimientos. They accepted repartimiento although they vaguely recognised the desirability of having Indians working under free contracts. In practice, the Peruvian church used the system, although some of the more sensitive churchmen condemned the atrocious working conditions of the repartimiento, especially in mining. (25)

Thus far we have concentrated on the attitude of the church towards forms of exploitation of the Indians during the early years of the conquest. However Indian policies continued to be debated inside the church which was involved in the regulation of the relations between colonists and Indians throughout the colonial period. As we noted above its role as protector of the Indians was more important in the early stages when its political power was greater and its economic involvement in the colonial order less. However, ecclesiastical bodies, sometimes at the request of civil authorities, continued to rule on the justice or injustice of Indian wars and the
regulation of economic institutions in concrete circumstances. As there are no comprehensive studies dealing with the whole social formation, an analysis of the most outstanding cases of ecclesiastical political intervention in Indian affairs will help us to reveal the nature of such intervention from the late 16th century onwards.

Legal Indian slavery did not disappear from the Spanish empire with the New Laws and their enforcement in 1550 and the church maintained an ambivalent stance towards it. Several tribes who were unwilling to submit to Spanish rule were legally enslaved with the explicit or tacit approval of the church, while others remained outside the institution partly due to the favourable intervention of the church. (xv) For instance in two

(xv) Apart from the Mapuches of southern Chile, the tribes Lacandon of Chiapas were legally enslaved in 1558 for a period of 10 years only after consultation with the Dominican Provincial Chapter which approved it. The Caribs of Venezuela were legally enslaved from the beginning of the 16th century to the second half of the 18th century with the tacit acceptance of the church. Thus the third Synod of the bishopric of Coro-Caracas (1687) condemned the illegal extortions of Indian labour by the encomenderos without referring to the legal slavery of the Caribs. Finally the Chiriguano Indians of Peru were declared legally liable to slavery in 1584 after the favourable decision of a Theological Council summoned by the viceroy in 1574. (26). The conquest of northern Mexico was an opportunity for the soldiers and civil authorities to illegally enslave numerous supposedly rebel Indians, different communities of friars throughout the 17th century denounced these abuses to the viceroys. On the other hand Bishop Rivera of Guadalajara (1618-30) justified the waging of war against the rebel Indians of New Leon despite the moral hesitations of the governor and in agreement with the colonists' demands. Finally, in the 17th and 18th centuries, the missions, especially the Jesuit ones, represented for the Indians a refuge against slave raids and in many cases against personal service. (27)
frontier areas, northern Mexico in the late 16th century and southern Chile throughout the colonial period, the Spanish state faced prolonged wars against Indian nations. The church was involved in the debates surrounding these wars in differing contradictory ways, and the nature of its intervention seemed as likely to be determined by its own economic interests and those of the colonists as by its role as protector of the Indians. A brief analysis of the positions taken up by different sectors of the church will illustrate this point.

The Chichimecs in Mexico and the Mapuches in Chile resisted Spanish domination with a certain degree of technical sophistication including the use of horses and guerrilla tactics and, as a result, the Spanish suffered significant military and economic losses. The discovery of rich silver mines in the Zacatecas region in Mexico in 1540 and the 1550's created a mining enclave which was separated from the Mexico City market by the Chichimecs, who constantly attacked the Spanish settlements or silver convoys thus presenting a barrier to Spanish expansion to the north. In retaliation the Spaniards enslaved the Indians and used their labour power on the surrounding farms and ranches or sold them to the colonists of the south. By the 1580's the colonists were deeply concerned about the Chichimec problem and Mexico City council asked the third Mexican council to declare the war waged against the Chichimecs to be just and approve their perpetual enslavement. This was to amend a previous decision of theologians of the Mendicant orders (1569) that war against the Chichimecs was legal and that the prisoners should perform personal service for a
limited period only. (xvi) The decision of the regular orders and the council in general was this time against slavery and therefore against the wishes of the colonists. The Mexican church rejected the justice of both war and captivity of the Chichimecs, proposing instead the establishment of a network of missions and towns of Spaniards and christianised Indians to settle the area; subsequently this procedure was followed successfully. (29)

In Chile warfare against the Mapuches continued throughout the colonial period and beyond and the attitude taken by the church differed from the Mexican case. Despite the condemnation of the war as unjust by some friars in 1563 a council of theologians legitimised the war. The continuation of this war did not legalise the enslavement of the Mapuches but resulted in a continuous traffic of Indians from south to central Chile and their export to Peru. After the general uprising in 1598 which included pacified Indians who were submitted to personal service, the governor sanctioned the enslavement of rebel Indians. But before this civil decision, in 1599 the Chilean church had unanimously approved the 'Treaty of the importance and convenience to enslave the Indian rebels of Chile', which was written by the general vicar of the bishopric of Santiago and sent to the king. The Cathedral

(xvi) It seems that the Dominicans were against this measure and argued that the Spaniards were aggressors and deprived the Indians of their lands. In contrast with this Archbishop Moya Contreras of Mexico (1574-86) requested slavery for the Chichimecs, including women and children. The viceroy adopted a middle way limiting captivity to 13 years and excluding the children. (28)
Chapter, the provincial fathers of the Dominican, Franciscan, Mercedarian, Augustinian and Jesuit orders, approved the document which recommended the enslavement of the rebel Indians on the following counts: 1) For continuing in rebellion despite the repeated offers of peace, security and good treatment, 2) For apostasy of the Christian faith, 3) For preventing the preaching of the gospel among them, 4) For preventing communications and commerce of the Spaniards. One of the supporters of the treaty, the vicar of the Order of St. Augustin, was the envoy who was sent to Spain by the colonists of the most important cities of Chile to lobby for the legalisation of Indian slavery in 1601. Despite the pressure of the Chilean church, colonists and authorities, the king did not immediately accept the proposal. On the contrary he decreed the freedom of all Chilean Indians so far enslaved and absolutely prohibited their enslavement in the future.

Three years later in 1608 however, the king sanctioned the slavery of the Mapuches on the advice of the Council of the Indies who accepted the reasoning of the Chilean church.

However the church was not united in its attitude towards the Mapuches. There was an attempt by the Jesuits to establish a programme of pacific evangelisation and a truce from 1612-1627; despite this slavery continued to be sanctioned by royal degree until 1676. Denunciations by the bishop of Concepcion and others forced the king to summon a theological council of prelates in Chile in 1662 to decide on the justice and convenience of the Mapuche war and slavery. After almost a decade the Council finally decided that both war against and slavery of the Mapuches were just. This council included the bishop of Santiago and the provincial fathers of the religious
orders. The crown however followed the council of the Jesuit Rosales, who advised the total abolition of slavery and recommended pacific means of evangelisation. Thus in 1676 the institution was legally abolished against the wishes of the Chilean church, the colonists and the local authorities. (30)

Clearly the American church had not developed a coherent policy on Indian slavery and was, to a large extent, swayed by the economic interests of the colonists which, more often than not, coincided with its own. The differing outcomes in Mexico and Chile can be linked to their different situations as regards the supply of labour. Both suffered from a decline in the Indian population and therefore a shortage of Indian labour power but the solutions open to them were different. In Mexico a combination of measures were taken including rationalising the way labour was used, increasing the importation of black slaves, intensifying repartimiento and using 'free' Indian workers who were usually retained through debts. This road was not open to the Chilean colonists. Black slaves were prohibitively expensive in Santiago de Chile, about twice as expensive as in Mexico City, and personal service was still in existence whereas it had been abolished in Mexico. Thus the only sources of labour were encomienda Indians from Cuyo and Tucuman, present Argentina, or Mapuche Indians captured in the war against them in the south of Chile. These conditions meant that in Mexico it was not essential for the economy to enslave Chichimecs while in Chile Mapuche slaves were indispensable. The church's differing stance on slavery in these two cases therefore relates more to the economic circumstances in which it found itself than to its political role as protector of the Indians. This role was mediated by
concrete economic conditions in the colonies and, as the case of Venezuela which we shall now turn to illustrates, the balance of class forces. (31)

In Venezuela, which was another poor and sparsely settled colony, the bishops seem to have been instrumental in maintaining the worst conditions of exploitation of the Indians, against the regulations of the crown but in agreement with the colonists and the local bureaucracy. Royal legislation at the beginning of the 17th century ordered the suppression of personal service in the areas in which it still existed and its replacement with tribute in kind or money. To implement these orders in Venezuela, a tribute assessment was made in 1609 by the governor and Bishop Alcega of Coro. But this assessment expressly commanded that tribute in money or kind be commuted to labour tribute when Indians were incapable of providing the two former. Furthermore, the assessment lowered the age at which tribute had to be paid from 20 years, as ordered by the crown, to 12 for males and 10 for females. Again in the 1670's the crown ordered the suppression of personal services but the governor and the bishop of Coro decided to suspend the execution of the order and ratified instead the tribute assessment of 1609. (31)

The data we have presented in this chapter provide us with an indication of the main trends of development of the church's social ideology and political action in Spanish America (xvii) which we will now attempt to summarise.

(xvii) A definitive evaluation of the church's social policies and the basis of the political position of the colonial church would require an analysis of the interests, motivations and action of prelates and chapters, both regular and secular throughout the period of colonial rule in every region of Spanish America, such an analysis would have to be situated within the context of the class dynamics of each social formation and is unfortunately beyond our scope at present.
After a period of two decades of insensitivity in the face of the harsh exploitation of the Indians, sections of the church began to react against the brutalities of the colonists and denounced them to the crown. During this period, roughly the second to fourth decades of the 16th century, the crown started supporting these denunciations by promulgating regulations which attempted to eliminate the most flagrant abuses. The colonial experience of the more sensitive friars and the discussion about the just titles of Spain over the Indies led to the appearance, and increasing influence, of an Indigenist ideology among ecclesiastics and statesmen which condemned the practices of the conquistadores. The Indigenist par excellence, friar Las Casas and his Dominican collaborators, through the theological debate and their missionary praxis in the colonies, adopted a radical approach to the colonial problem and at the same time obtained a certain influence at court. It was however during a third period, 1540-1550's that the Indigenist party inside the church reached the peak of its influence.

The promulgation of the New Laws and their partial enforcement, along with the support granted by the crown to Las Casas' point of view in the 1540's and early 1550's(xviii) were incontrovertible evidence of the crown's decision to eliminate the excessive powers of the encomendero class and to stop the

(xviii) We have already emphasised the role of the Indigenist party as a pressure group whose agitation and lobbying was decisive in the promulgation of the New Laws. Immediately afterwards (1544 onwards), several Indigenist ecclesiastics, including Las Casas, were appointed as bishops in America. After the 'difficulties' in his bishopric, Las Casas, back in Spain, was active in selecting missionaries to send to America on commission from the crown. At the same time the friar enjoyed immediate access to the Council of the Indies and special financial arrangements to enable him to attend the meetings of the Council or other events. (33)
demographic collapse of the Indian societies. However, the violent reaction of the encomendero class, the low differentiation between government and society (xix) and the resulting solidarity between the representatives of the crown and the colonists in relatively unsettled areas, meant the partial suppression of the New Laws. The radical Indigenist churchmen, without help from the local authorities or even with their opposition, had to resort to ecclesiastical penalties to exert their protectorship of Indians effectively, and in turn they suffered the threats and violence of the colonists.

The rule of Philip II (1556-98) created a new political environment for the Indigenist ecclesiastics and the church in general. Slowly but surely the crown began to suppress the ecclesiastical mechanisms of political intervention in Spanish/Indian relations and subjected the church to the local bureaucracies. The official and long established churches of Mexico and Peru, on the other hand, had already reached a modus vivendi with the colonists, supporting the encomienda and repartimiento systems and criticising the more obvious excesses. Only in the peripheral missionary areas did the church continue to play an effective role in protecting the Indians beyond the 16th century. The attitude of the official church was one of acceptance of the harshness of the exploitation of the Indian and African peoples, and actions undertaken by zealous churchmen were only remarkable exceptions by the

(xix) The semi-private character of the conquests meant that the conquistadores were or became the early civil authorities of the colonies and granted themselves and their close associates the largest share of the spoils of conquest. This type of ruthless adventurer was therefore in charge of enforcing the New Laws in many places.
The contradictory and decreasing political role of the Spanish church in America in the period under study derives from a complex set of determinations. At the economic level the church, as the rest of the colonial order in Spanish America, rested primarily on the exploitation of the Indian labour force. The introduction of African slaves and the use of the labour power of the 'castas' (product of the miscegenation of Indians, whites and blacks) did not free the Indian communities from the exactions of the colonists, crown or church, and was merely sufficient to replace the enormous void left by the Indian depopulation of the 16th century. The building of monumental churches required an enormous mass of Indian labour which was appropriated under the encomienda or repartimiento system.

Tithes, a crucial part of the church's income, were slowly extended to the Indian communities despite the complaints of Indigenist friars who rightly saw in this measure an obstacle to evangelisation. The subsidies paid by the crown to the church derived to a large extent from the Indian tribute or other royal income exacted, in the last instance, from the Indians.

The participation of ecclesiastics in private business to enlarge their income and the accumulation of wealth by bishoprics and the regular orders from the late 16th century onwards, were

(xx) This assertion is Friede's (34). Similar conclusions can be derived from Barnardas 1973:343-5; Row 1957:183 ff. All the studies sympathetic to the church's Indian policies consulted by us mysteriously stop around 1600. For cases of 17th and 18th century indigenist churchmen see Baile 1945:38,177-9; Friede 1976: 238 ff.
all based on an Indian or black slave labour force, and this created a solidarity of interests between the church and the colonists which was difficult to overcome with purely ideological principles.

In the political sphere the intervention of the crown, both as a stimulus and later as a deterrent to church Indigenist action is of paramount importance. The royal appointment of bishops and the control exerted over the church through the patronage laws established the limits within which the clergy had to operate. Thus, by the late 1520's bishops and friars were commanded to intervene politically to protect the Indians, while by the 1570's these prerogatives were severely curtailed by the crown. The weakness of the state apparatuses of government in America during the early 16th century meant that the crown made use of the power of the church to counter-balance the power of the conquistadores and civil authorities which were closely associated with them. Once the administrative system of vicerealties, Audiencias, corregimientos, etc., was well established, the direct political intervention of the church was, from the royal point of view, no longer necessary since, in theory at least, the civil power had achieved the maturity necessary to administer the dependencies independently of the immediate interests of the colonists. From then on the church continued to be consulted about decisions on the justice of war against rebel tribes and tribute assessments. As the new conquests became more remote and demographically less important so did this function of the church.

During the first half of the 16th century however, the church was not merely a passive instrument of the crown but the arena of an ideological struggle which supposedly was deciding
the fate of the Amerindians. Inside the church and particularly among the Dominicans, a more or less homogeneous ideological fraction developed at the time and in the 1540's and 1550's, Las Casas became its leader. He and his associates achieved paramount moral and political influence in ecclesiastical circles and at court. With a handful of close collaborators he managed to coordinate the struggles of the Indigenist churchmen, lobby successfully at court, engage in theological debates and write and publish the most outstanding denunciations of the Spanish colonists. The action of this party obviously stimulated the humanist tendencies inside the church, providing them with the ideology and the methods to act effectively against the abuses of the colonists.

Last but not least the development of Indigenist trends inside the church was also a result of the reaction of the Amerindians to the missionary or civil effort to incorporate them into the colonial sphere. Rebellions and the killings of missionaries or civil officials by the Indians acted as a spur to the anti-Indigenist ideology within the church, while the acceptance of missionaries and the Christian faith by the Indians made the success of Indigenist policies more

(xxI) The character of party or more or less organised fraction of the Indigenist movement is clear from the active correspondence of Las Casas with the Indigenists in America, the publication and distribution of his work throughout America, his or his associates' intervention in the recruitment of missionaries and their concerted action on several relevant issues, such as the offer of the Indians of Peru to the crown against the encomienda, anti-Indian slavery bulls and New Laws. (35)
At the level of ideology, the crisis of conscience precipitated by the brutalities of the colonists in the years of unbridled conquest must have been serious for the more sensitive churchmen. This created the necessary conditions for a movement like the one led by Las Casas. Las Casas himself was a repentant encomendero who gave up his Indians and committed himself to their defence for half a century. Obviously to have social relevance these personal crises have to have a certain ideology embodied in certain institutions with a definite programme of action which renders this ideology efficacious. Communities of religious of the recently reformed orders of St. Francis and especially St. Dominic provided institutions adequate to give direction to these crises. The first Dominicans of Hispaniola, founders of Indigenism, had been recruited mainly in the convent of San Esteban of Salamanca.

(xxii) The progress of peaceful evangelisation in Verapaz (Guatemala) and the reduction of the rebel chieftain Enriquillo in Hispaniola through missionary work were skilfully exploited by Las Casas and the Indigenists to justify pacific evangelisation as the only way to legitimately attract the Indians to Christianity. However, rebellions like that of 1598 in Chile, or the killing of missionaries by the Lacandon Indians in Guatemala in 1555 forced pro-Indian ecclesiastics, like the Jesuit Valdivia and the Dominicans of Guatemala, to accept the slavery of those peoples. (36) It is necessary to insist that even radical Indigenists like Las Casas had to work inside the colonial framework. Thus their aims were also to integrate the Indian communities in one way or another into the Spanish order. Indeed Las Casas proposed the total abandonment of the New World by the crown, but he knew that given the realities of the colonisation process and the forces in operation, the only way of acting efficaciously in favour of the Indians rested on the actions of the combined efforts of crown and church. The missionaries of every order always retained a basic loyalty to the crown. Thus the alternatives were not colonialism or freedom but military conquest with its consequent atrocities or slow, willingly accepted incorporation of the Indian communities to the Spanish crown under its own supervision.
and were impregnated with the most strict religious observance and ethical rigour. The Dominican and, to a lesser extent, the Franciscan orders provided Spanish America, in the period of early colonisation, with bishops and communities with clear Indigenist influences. Their missionary praxis in Hispaniola, Mexico, and so on which provided an alternative to the military conquest, created a model which was later adopted by the rest of the religious orders in the frontier areas, in conformity with the interests of the crown.

Thus we can conclude that the fundamental role of the church in the early years of colonisation was one of moderator of Indian/colonist relations. The excesses of the early colonisers, a favourable ideological conjuncture among the religious orders and the firm support of the crown until the 1560's, permitted the church to balance the weakness of the secular state apparatuses against the power of the colonists. The development of these apparatuses in the central areas and the firm hold of the crown over the church relegated the pro-Indian impetus of the missionaries to the peripheral areas to enlarge the empire and secure its frontiers. Thus, until the civil administration had developed sufficiently the church performed a vital political role in Spanish America, maintaining and regulating the relationship between coloniser and colonised.
Chapter 11: Indian Acculturation and Resistance

The character of the Spanish conquest and the nature of the economic, political and ideological organisation of the native peoples produced different social formations and modes of exploitation of the Indian labour force in each area. This resulted in different reactions from the aborigines despite the effort of crown and church to homogenise the areas conquered through imperial legislation and the implantation of Catholic orthodoxy. For those communities which were already tributaries of pre-hispanic states it meant an increase in exploitation and the disruption of their political and ideological systems which, as we have seen, were restructured within the colonial order. For those peoples not previously organised into or submitted to state organisation, acceptance of the colonial order was more problematic. Under the threat of, or directly decimated by slave raids and forced personal service for long periods of time, they sought refuge in the frontier areas or resisted militarily for various periods of time. The expansion of the colonial powers throughout America brought many of these peoples into the Spanish colonial order, either in its missionary form or under the direct rule of the conquistadores. Both conquistadores and missionaries were steeped in the religious intolerance dominant in 16th and 17th century Spain. Thus a rapid destruction of native temples and objects of worship plus the elimination of the native priesthood followed the military or 'spiritual' conquest everywhere.

The reaction of the Indians vis-a-vis this more or less radical disruption of the social structure ranged from open and immediate rejection of the new system by violent means to a
formal acceptance of the new order, while retaining as many elements of the old structure as was possible 'underground'.

At the time of the conquest, Amerindian thought was dominated by religious ideology. The material conditions of existence as well as power relations and cultural expressions were interpreted in the light of pre-hispanic religions. The introduction of Catholicism with a new set of symbols, moral rules and world-view, incorporated a new religious system into the already complex structure of religious beliefs of the more advanced pre-hispanic states. However the Spanish civil and religious bureaucracy, unlike that of the Aztecs and Incas, was not prepared to tolerate an alternative religion to their own, so inquisitional or semi-inquisitional methods to extirpate the idolatry of native religions were imposed.

The initial rejection or indifference of the Indians towards the new religion was followed, after varying periods, by massive conversions of entire communities. The speed of the process, for instance millions of Mexicans were baptised in a decade by a handful of missionaries, resembles the expansion of Christianity in medieval Europe, protestantism in the 16th century and other major religions in their periods of greatest vitality. The speed of this process was not unconnected with the decisions of the political powers of the territories concerned which imposed, stimulated, accepted or repressed the cults in question. Likewise in America, the conversion of the chieftain of the Indian community, on which the church concentrated its major efforts, usually entailed the conversion of his subjects. In addition to this, the repressive measures against the native cults and the power held by the Spaniards, both colonists and missionaries, made it at least convenient to accept the new cult.
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The rapid and therefore superficial acceptance of Catholicism, in the form of the presence of missionaries, baptisms and minimal indoctrination, permitted the access of the Spanish church to a vast mass of neophites who were susceptible to further indoctrination and a deeper understanding of the Catholic faith. At the same time it created the possibility of apostasy, religious syncretism and juxtaposition which worried missionaries and bureaucrats alike throughout the colonial period.

Religious deviance among the Indians acquired multiple expressions which are difficult to categorise because of their complexity. For our purposes, to understand the political impact of religious deviance, a simple division between religious syncretism, juxtaposition and rejection will suffice. In the first case, we consider those cults in which an apparently Christian practice involves a combination of pagan and Christian beliefs, or a displacement of the meanings of those symbols which are a matter of special devotion so that the content is no longer Christian but pagan; the opposite process also occurs. For instance, the devotion to the animal placed beside a saint or the moon on which the virgin stands and, conversely, the process of the withering away of selected aspects of the old tradition which are then replaced by Christian beliefs and practices. Religious juxtaposition, on the contrary, involves more or less orthodox practices in front of the missionary agent, but at the same time a continuation of the secret practices of the pagan cult with some degree of organisation.

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what is decisive in this case is the rejection of Catholicism as a legitimate apparatus of symbolic power because it commanded or forbade social and religious practices without the consent of the legitimate Indian authorities. This rejection took the form of the revitalisation of the pre-hispanic religions or the creation of new cults borrowing heavily from the symbols, practices and structures of the old ones. These constituted an emergent and relatively unsystematic counter apparatus, which defied not only the religious homogeneity of Indian society but also the political and economic basis on which the colonial order was founded. In turn their political character and potential explosiveness made these religious movements subject to immediate and drastic repression, in contrast with the tolerance and even stimulation of religious syncretism. Thus the significance of each of these three religious deviations was different. Syncretic processes transfigured the Catholic faith, making it more accessible to the Indian masses, but at the same time they consolidated the control of the church over the neophytes permitting, in the long run, the enforcement of Catholic orthodoxy. Rejectionist movements radically broke with the Spanish religious apparatus, they either violently attacked the colonial order in its military, civil or missionary aspects or adopted cultural isolation which was prone to violent explosions. In an intermediate situation religious juxtaposition could evolve into either of the two other processes, or even stabilise a dual pattern of religious behaviour for an indefinite period. To understand the concrete development of these processes of acculturation and resistance we turn now to the analysis of religious phenomena in the major cultural areas of Spanish America, Peru, Mexico and Guatemala.
Peru

By the 1550's, the big temples of the Incas had been destroyed and sometimes a Christian church had been erected on the ruins. The native priests and the general population were forbidden under the threat of severe penalties to worship their ancient gods. However, different forms of idolatry persisted in the Inca area for over a century. One of the more solid and widespread forms of idolatry was the Toqui Ongoy movement. Literally 'dance illness', the movement spread throughout southern Peru in the 1560's, 30 years after the conquest. Deeply anti-Spanish, their ideology was based on a radical opposition to all elements of acculturation. Preachers agitated in the Indian villages for the restoration of the ancient cults destroyed by the Spaniards. Stimulated by maize beer and probably hallucinogens, the Indians danced hysterically and made offerings for the resurrection of their deities; these offerings included self-mutilation and suicide. Essentially religious, although with clear political aims, i.e. the end of the political rule of the Spaniards, the movement was limited to an ideological struggle which only indirectly threatened the colonial power. Violence was only used against the Christian symbols and no general plan of military revolt seems to have been prepared. The struggle which was seen in the mythical thought of the Andean people as a struggle between the Spanish and native gods did not provide the means of destroying the colonial order as had been prophesied. (1)

More realistic and less radical was the action of the descendants of the Inca rulers in their isolated kingdom in the jungles of Vilcabamba. There a 'neo-Inca state' persisted until 1572 through negotiations with the Spaniards and eventual
recourse to armed actions. These rulers, who could have claimed the historical heritage of the Inca empire and its cultural tradition, as did many rebels in the 18th century, limited themselves to seeking a recognition of their rights in the peripheral but rich province of Vilcabamba and a privileged position in Spanish society. Accordingly, no direct attack was made on the Spanish settlements and they even allowed missionaries within the province. It was only during the rule of the last neo-Inca ruler, Tupac Amaru (1571–2), that open rebellion occurred with the expulsion of missionaries and the breaking off of negotiations. However, the isolation of the neo-Inca state, and the ambivalence of the Indians themselves, who did not have a clear anti-colonial ideology, led to desertions and the total destruction of the remains of the Inca empire. (2)

The content of these two almost simultaneous phenomena reveals the set of contradictions operating at the ideological level as a reflection of the material consequences of the conquest. The Incaship, provided with power and granted privileges by the Spaniards, resorted to negotiation to integrate itself favourably with the colonial order. In contrast to this the Indian masses, who were submitted to forced labour and other exactions, resorted to escapism and retreat from Spanish culture and the spontaneous revival of their pre-hispanic cults.

The imprisonment of the preachers and the financial penalties imposed on the thousands of Indians involved in the Toqui Ongoy around 1570 did not stop the ethnic resistance of the Indian masses which was expressed in the persistence of native religion. The pre-hispanic regional cults maintained
their vitality for a century or so, disguised under a formal acceptance of Christianity. The recurrent discovery of idolatries led to systematic campaigns in which church and government alike participated. Regularly the idols worshipped by the aborigines were destroyed and their priests tried and punished. Although Indians were excluded from the inquisition established in Lima in 1570, the trials undertaken by the 'Inspection of Idolatrous Cults', an institution created at the beginning of the 17th century, borrowed its methods and applied them to Indian idolatry. Thus informers, torture, solemn abjuration and 'auto da fe' constituted the various stages of the trials. True, in the auto da fe, the burning of idols replaced the burning of idolaters, but the latter were publicly humiliated as punishment as well as condemned to a variable period of imprisonment.

The recurrence of these anti-idolatry campaigns during the first half of the 17th century and the parallel recurrence of nativistic movements, with similar characteristics to the Toqui Ongoy but with more limited influence, until the middle of the 17th century is indicative of the partial failure of these campaigns. After the destruction of the idols, the Indians collected the remains and continued the cults in a more discreet way or simply displaced their worship to natural objects such as mountains and caves. The mid 17th century also marked a relaxation of the severity of the treatment of the 'idolaters', a finer division between idolatry and mere superstition was made and pre-hispanic rituals in which the 'work of the demon' was not present became tolerated. (3)

The effectiveness of the anti-idolatry campaigns and the new approach of the second half of the 17th century in Peru
is a matter for conjecture. The recorded complaints of ecclesiastics against Indian idolatry up until independence substantiate its persistence but do not reveal its extent. However a brief look at the most important Indian revolts and their aims in 18th century Peru reveals the permanence of Indian ideology, at least in its more articulate expressions.

The most important Indian revolt in Peru, indeed in colonial Spanish America, was led by Jose Gabriel Tupac Amaru in 1780 and was not aimed directly against Spanish rule but against social injustice. Although it soon took on an anti-Spanish character, since the Spaniards were the main supporters of the status quo Tupac Amaru was challenging, it did not include anti-Christian elements. In fact the orthodox descendant of the Incas received the support of an important sector of the clergy although the majority took the side of the government. The rebellions of Antonio Cabo (1750) and the aborted revolt of Tito Inga (1777), which were both deeply anti-Spanish did not include amongst their aims the replacement of the Catholic religion, and Cabo at least had contacts with sympathetic friars. All these rebellions developed in the proper Inca territories and their leaders claimed that they were the legitimate rulers of Peru by virtue of the fact that they were the direct descendants of the Inca rulers.

The same claim was made by Juan Santos who led a revolt in the central jungle of Peru, that is non-Inca territory, for over a decade. In this region the efforts of the missionaries to eliminate polygamy and other cultural traits plus the abuses of the colonists created the conditions for two successive rebellions. Chieftain Torote in 1737-8 attacked both towns and missions in a deliberate attempt to eliminate the
political and religious control of the Spaniards over the Indians. Escaping unharmed by the Spanish forces he joined the long rebellion of Juan Santos (1742-56). The latter, in a favourable physical environment supported by the different Indian tribes of the jungle, proclaimed a clear social programme suppressing slavery, forced labour and other abuses perpetrated by the Spaniards, but defending his particular conception of Catholicism.

Santos, a former disciple of the Jesuits, had a political and religious vision well in advance of the majority of the Peruvian chieftains of the time, let alone those of the backward tribes of the jungle. Against the advice of the chieftains he spared the lives of missionaries and aimed at the creation of a native Catholic clergy directly dependent and answerable to Rome and free from the interference of the Spaniards. Exploiting his supposed Inca descent, the use of shamanistic techniques and, above all, his political vision, which derived from his training at the hands of the Jesuits and probably experience in Spain and Angola, he gave coherence to the discontent of the jungle and Sierra (Inca) Indians as well as negroes and mestizos. It seems almost certain that the social message of Santos, which was originally presented in purely political terms and under a more or less orthodox Catholic doctrine, was interpreted by the Indian masses within their own religious thought.\(^{(1)}\)

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The isolation of Santos’ rebellion in the jungle, with only sporadic incursions into the Spanish dominated sierra, and his mysterious disappearance, do not permit us to hypothesise about possible religious development had the rebellion extended successfully to the core areas of Christianised Peruvian Indians. In the jungle his impact was powerful. His figure was incorporated into the mythology by the Indians who, long after his death, still awaited his return. Among the Christianised Indians of the sierra and beyond his impact was less but cannot be overlooked. Many sierra Indians were attracted by Santos’ message and there seems to have been a connection between Santos’ rebellion and that of Antonio Cabo in Huarochiti and Lima.

Mexico

In central Mexico the process of evangelisation/acculturation of the native peoples followed a smoother path as we have seen in the previous chapter. The elimination of the native clergy and temples was accompanied or followed by a deeper positive attraction of the Indians to the Catholic faith by means of preaching, the provision of education and health care and protection from colonist abuses. These methods did not rule out heresy completely, on the contrary, it seems to have survived into the 17th century when it was still giving the clergy cause for concern. None of these religious deviations, however, gave rise to articulated, mass processes of religious rejection comparable to those of Peru. On the contrary, the outstanding religious reaction of the Indians seems to have been a very early process of syncretism.

The popular devotion to the Virgin of Guadalupe, which was already venerated by the Indians in the 1550’s and was
later adopted by Indians and creoles alike as a symbol of independence from the Spaniards, reveals the degree of 'nationalisation', in its initial stages 'Indianisation' that the Catholic cult acquired in Mexico and particularly central Mexico. According to the Catholic tradition, in 1531 the Virgin Mary appeared to a humble Indian neophyte a few miles north of Mexico city, in Tepeyac, the ancient place of worship of Tonantzin, mother goddess of the Mexicans. The early Franciscan theologians saw in the affair a disguised idolatry but Archbishop Montufar in 1556 officially recognised the miracle as true and the devotion as sound. Almost exclusively an Indian devotion during the 16th and early 17th centuries, by the end of the 17th century she was also worshipped by the creoles and by the mid 18th century she became the official patroness of New Spain. However for the majority of the Indian pilgrims the Virgin of Guadalupe was still Tonantzin, mother goddess of the Mexicans. (5)

Likewise the Virgin Mary appeared in 1541 to another humble Indian in Ocatlan (Tlaxcala) giving rise to a devotion which was more restricted regionally but which presents the same syncretic character as Guadalupe. In this case it was the assimilation of Mary to the Tlaxcalan goddess, Xochiquetzali, which was worshipped in Ocatlan. In both cases not only the places of worship but also other characteristics common to Mary and the pre-hispanic goddesses contributed to the assimilation of both cults into one, through belief in these miracles and the consequent devotion. The syncretic process was not limited to the devotion to the Virgin Mary in both places of pilgrimage, but extended to other symbols of Catholicism, such as the saints, Jesus and the cross. According to Nutini this process was fostered in Tlaxcala by the religious who, for instance, chose
as patrons of certain Indian villages Christian saints whose physical or contextual similarities with local pre-hispanic deities made the association and transference easier. The occurrence of syncretic beliefs and practices did not always mean their acceptance by the religious apparatus and in many cases the cult of miraculous saints, crosses, etc., was repressed by the clergy and either disappeared or went underground, out of their control. (6)

Two other syncretic cults were particularly important for their massive Indian following in colonial Spanish America: Our Lady of Chiquinquira (Colombia) and Our Lady of Copacabana (Upper Peru). In both traditions the main protagonist is an Indian. One of them was Tito Yupanqui, who, in the 1580's, sculpted the image of Mary for the sanctuary of Copacabana, a pre-hispanic place of pilgrimage. After several miracles of the Virgin, or her image, devotion to the image permitted the Augustinian missionaries to eradicate the pre-hispanic beliefs and practices of the local Indians, and at the same time the sanctuary was transformed into the most important place of pilgrimage in South America. The other was an Indian woman who, in the same decade, discovered the miraculous restoration of an old painting of the Virgin in Chiquinquira and a regional pilgrimage which substituted Christian gods for pre-hispanic deities followed.

If the appearance and spread of these syncretic cults are indicative of the subversion of the pre-hispanic order of the Indians, that is the acceptance of the Spanish cult and the world view associated with it, as Fals asserts for the case of Colombia, this would suggest a rapid subversion of the pre-hispanic order in the case of central Mexico as compared with
Peru, whose syncretic process, at a mass level, only started 50 years after the conquest as compared with 10 or 20 years in central Mexico. There seems to be a parallel to this ideological process in the economic structure of both areas which would reinforce this suggestion.

In central Mexico the community chieftains very quickly adopted the monetary economy of the Spaniards and began the consequent exploitation of their own communities soon after the conquest (16th century), while in Peru the local chieftains retained a pattern of reciprocal exchange with their communities for over a century and were only marginally integrated into the Spanish monetary economy. It was only in the 18th century that they transferred their power as leaders of their communities into economic privilege.

The effect of the relatively early establishment of an efficient Spanish system of government in central Mexico, with the consequent regulation of the conditions of exploitation of the Indians, and the numeral and qualitative superiority of the Mexican clergy should also be considered. All this, obviously created the basis for an early social conformity and religious syncretism in central Mexico which was delayed for decades in the case of Peru. (7)

In peripheral areas of Mexico, however, revolts, most of them with religious aspects, were a constant feature of the colonial period. The Spanish expansion northwards in Mexico from the 1540's onwards led to a constant confrontation between missionaries and colonisers, on the one hand, and the scarcely politically organised tribes of the area on the other. An incomplete list of rebellions in northern Mexico compiled by Florescano reaches a total of 78 revolts for the whole colonial
The slave raids and the forced labour extorted by the colonists, along with the cultural rigidity of the missionaries and the corollaries of idol-smashing, compulsion to attend mass, and so on, created the conditions for violent rebellions which were usually spurred on by the Shamans. Likewise the Maya Indians of south and south-east Mexico suffered from similar treatment. As in the case of Peru we will analyse the major revolts in the area in order to grasp the connection between religious movements and political power. (8)

(a) The Pueblo revolt

The Spanish colonisation of New Mexico, which started at the end of the 16th century, had its most serious reversal in 1680. After a few decades of smooth indoctrination of the Pueblo Indians, the friars realised that the ancient cults still survived and in the 1650's initiated a more repressive policy, which included suppression of native dances, masks and images, in contrast with their much more positive start. Parallel to these activities were those of the colonisers from the governor down who extorted forced labour from the mission Indians and soon created a prolonged conflict between the Franciscan missionaries and the civil bureaucrats. While the former bitterly criticised the colonists' corvees, the latter complained about the brutal repression of Indian idolatry and even sympathised with the Indians' practices. To make things worse for the Pueblos, the Spanish garrisons became incapable of protecting the missions from the attacks of Apaches and Comanches; this protection had been one of the main reasons for the submission of the Pueblos. Things started to change when in the 1670's church and civil government united to root out heresy which had revived vigorously
after a period of crop failure, pestilence and Apache attacks. In a single raid in 1675, 47 pagan priests were detained by the Spaniards and three of them executed. However, rather than destroying heresy, this measure stimulated rebellion and one of these priests, after his release from prison, organised with his fellow priests and local chieftains the great rebellion of 1680. Their aim was the total elimination of the mission system and Spanish domination from Pueblo lands and they were to achieve this aim with the help of their ancestral spirits. They temporarily reached this target by controlling New Mexico from Taos to El Paso and killing, in the interim, 21 missionaries and a few hundred colonists. (9)

(b) Highlands of Chiapas

During 1708-13 several Indian villages of the Chiapa highlands experienced religious movements whose common characteristics were the appearance of the Virgin Mary promising to help the Indians and offerings to her by the Indians and the construction of a hermitage for her worship. In three of these villages the syncretic cults were destroyed by the Catholic clergy without resistance from the Indians. In the fourth the Indians resisted and expelled the Catholic priests. Two months later, with an Archbishop's visit imminent and the resulting cost to be borne by the Indians, the elders of the community and the leaders of Mary's cult called for a rebellion among the neighbouring communities. Their aims were to stop paying royal tribute and ecclesiastical duties, to eliminate Catholic priests and non-Indian castes and that only Mary should be obeyed. The leader, who claimed to have direct orders from Mary, the Holy Trinity, Jesus
and Saint Peter, rapidly created a native clergy, using the same Catholic paraphernalia and sacraments as the Catholic church, expropriated the wealth of the church for the Indian cult and with this created an army which reached 4,000 fighters. The assault on the provincial capital, which was defeated by the technical superiority of the Spanish army, demonstrates the radical nature of its aims and the means it used to try and achieve them. Both its aims and means were expressed in terms of religious ideology, adapting and manipulating Christian symbols to native needs and practices. (10)

(c) Jacinto Canek

In 1761, Canek, a former disciple of the Franciscans, managed to arouse the anti-Spanish feelings of the Indians of Cistel, Yucatan, through thamaturgy and speeches, in which he denounced the exploitation of the Indians by the whites and the connivance of the clergy. The Indians took control of the town, crowned Canek king and sent messages to the neighbouring villages ordering them to revolt and obey the Canek plans which were already known. The quick reaction of the Spanish clergy and army which isolated the town and smashed the Indian resistance, slowed down the expansion of the conflict. Even so the rebellion took a toll in human life, over 600 Indians and 30 Spaniards including eight priests were killed. Canek combined a knowledge of European culture, which was superior to that of his fellow Indians, with familiarity with the shamanistic techniques characteristic of the Maya religious leadership. This combination, given the objective situation of exploitation of the Indians, succeeded in transforming the native religious beliefs into a revolutionary praxis aimed at the total elimination of the whites. (11)
In Guatemala, as in central Mexico, a process of syncretism and juxtaposition prevailed. The Christian symbolism introduced by the missionaries was rapidly assimilated into Maya religious thought. The cult of the patron saints of the villages involved the continuation of the Indians’ totemic beliefs in which the animal accompanying the image of the saint rather than the saint itself was adored. The Catholic sacraments either acquired magical connotations in Maya thought, for instance extreme unction was seen as a supernatural remedy for incurable illness, or were assimilated into the pre-hispanic sacraments thus disfiguring the Catholic doctrine. Sometimes they had to be imposed by purely repressive measures.

In parallel to this bona fide misrepresentation of the Catholic faith, that is the incapacity to think in terms of the categories and concepts emanating from an alien intellectual, political and economic experience, there were deliberate attempts to deter the consolidation of orthodox Catholic practices and beliefs among the Indians. The pre-hispanic aristocracy made up of local chieftains and their families, which had political and religious functions, continued to fulfil these functions under the new circumstances produced by the conquest. As governors, mayors or chieftains of the Indian towns they retained or increased the power at their disposal, appropriating communal lands, extorting personal services or other sorts of tributes from the Indians. On the other hand they were the bearers of the remains of Indian culture and, as 'ahcum', they were physicians and savants controlling the agricultural calendar which was now transformed according to Christian festivals. This objective symbolic power was difficult for
the missionaries to destroy since they depended on this aristocracy to improve the Christian practices of the Indians by punishing them for not attending masses and so on. This meant that the aristocracy was able to reject certain aspects of the new religion with impunity by organising local protests. The problem of the reduced scope of these religious protests is dealt with by Solano who asserts that the lack of unity among the Indian leadership prevented these phenomena from surpassing local limits. His analysis of the local aristocracy, however, suggests additional reasons for this behaviour. The Spanish church and government helped to increase the power of the Indian aristocracy which seized the opportunity for personal profit implicit in the colonial order very early on, and in fact the 'majority of the protest movements were a response to their own (Indian) authorities'. (12)

Thus, as in the case of central Mexico, a wide gap developed between the interests of the Indian authorities and those of the commoners, this is in contrast with the closer and more traditional links between the Peruvian chieftains and the commoners. The consequent erosion of the legitimacy of the chieftains, both in the political and religious field, and the social integration of the community undermined the originally unanimous response whether positive or negative to the new religion. (ii)

(ii) For instance, Gibson explains the decay of Indian enthusiasm for Catholicism among the Aztecs of the Valley of Mexico after the 1550's by the church's change of attitudes towards encomenderos and by the loss of authority of the chieftains who were incapable of unifying the response to Christianity. Conversely Solano indicates that in the 18th century there was a relaxation of the violent punishments with which the Guatemalan communities sanctioned the denunciation of their pagan practices to the Christian clergy in the 16th and 17th centuries. (15)
The variety of religious responses, of which the cases analysed in the previous pages are only a sample, was the result of a complex set of determinations: the degree of exploitation suffered by the Indians, their political organisation prior to the conquest, the different combinations of the use of the 'carrot and the stick' by the missionaries, ranging from tolerance and care of the well-being of their flocks to rigid ethnocentrism and cupidity, the favourable or unfavourable perception on the part of the Indian leadership of the new order and the relative strength of the repressive apparatuses, both military and religious. Social scientists dealing with religious deviance, particularly when this involves irreducibility to the dominant religious ideology, have emphasised the importance of economic, political and ideological aspects in their interpretation of these phenomena. (14) The economic factors, in which we include appropriation of the labour force and physical resources by the Spaniards, famines, plagues and wars, are in clear evidence in the cases of religious rejection analysed above. There also seems to be a connection between the processes of religious syncretism and the acceptance by the Indians of the economic system of the Spaniards. There is, then, an economic substratum which nourished the religiosity of colonial Indians. The assumption of a simplistic economic determinism, however, would prevent us from grasping the dynamics of these religious processes and would leave unexplained the occurrence of largely secular movements of Indian protest, as well as those which expressed economic protests in religious terms on a purely local level and were rapidly neutralised by the Spaniards.

An inter-religious or more broadly, inter-ideological
analysis permits an advance in the understanding of these processes, provided that we look at them in combination with the determination of the economic and political instances. In this respect, Ossio and Edmonson have emphasised the millennial or 'nativistic' pre-hispanic tradition of certain ethnic areas, such as that of the Guarani of Peru, in contrast with the more docile Aztecs of central Mexico. They suggest that such traditions would bring about the colonial rejectionist movements which shook those areas in contrast with the smoother religious conversion of central Mexico and Guatemala.

The kernel of truth in this assertion is obvious, each of these social formations was the product of different pre-hispanic historical development, which in turn produced a different set of ethical patterns, myths and values. This does not permit us, however, to assume the maintenance of the ideological structure which was produced and reproduced before the Spanish conquest, throughout the conquest up to independence and beyond. The colonial 'experience' i.e. the conquest itself, the degree of exploitation of the Indian labour force, the different methods used by the missionaries, the brutality of the repression of local cults(iii) and Catholic symbolism, were all factors in the transformation of the ideological structures of the Indian masses. New religious and social practices, although derived from a selective combination of the old ones, tend to repeat themselves

(iii) The records of the early inquisition in Mexico show cases of Indian chieftains in the process of becoming leaders of rejectionist movements, and at least one of them had clear political overtones (i.e. Don Carlos, burned at the stake). The drastic repression obviously inhibited the transformation of these processes into massive religious rejection. (15)
and to create new patterns which can significantly modify the ideological field of society. For instance, the Highlands of Chiapas' experience was a series of appearances of Mary, perhaps a reflection of Guadalupe's miracle, which escalated into rebellion. The Pueblo rebellion set off a series of Indian upheavals in northern Mexico, and Santos' prolonged war set an ideological pattern in 18th century Peru where the adoption of the Inca heritage to legitimise their demands and the use of violence instead of resignation became more widespread.

The preceding analysis has been necessary to enable us to begin to analyse the relation between religion and politics in Spanish America. This relation has been discussed by various theoreticians such as Durkheim and Weber and, more recently by Burridge. He formulates the relationship as follows:

'Religions are concerned with the systematic ordering of different kinds of power, particularly those seen as significantly beneficial or dangerous'

and

'because politics, too are concerned with power it becomes clear and explicit that no religious movement lacks a political ideology.' (17)

Accepting this particular relation religion-power-politics (we will return to it later) it is necessary to specify historically the symmetry or asymmetry between the poles of the equation on two related counts. Firstly, the content of the

(iv) Durkheim stressed the integrative (legitimising) character of religion in primitive societies and its capacity to render effective the power structure in these societies. For his part Weber analysed the relations of dependence, frictions between and different forms of adaptation of the religious movements and churches to the political system. (16)
political and religious ideologies as embodied in apparatuses which render these ideologies effective and, secondly, the relative control over different mechanisms of power that is exerted by social groups or classes through both types of apparatuses.

As far as the Spanish empire during the period under study is concerned, the de facto division between the 'Republic of Spaniards' and the 'Republic of Indians' produced by the colonial situation renders the analysis more complex.

A specific apparatus for the wielding of power in both Spain and Spanish America was the inquisition. In Spanish America, as in Spain from the 1520's onwards the 'Republic of Spaniards' was potentially free of heresies. Apart from the inquisitional trials of a few political dissidents, illuminists, Crypto-Jews, and some non-Spanish protestants, the inquisition concentrated on cases of superstition, relaxation of morals, etc., and no coherent, organised threat to Catholic orthodoxy developed. (18)

A cross section of both church and crown however disputed bitterly on many issues relating to the control of the mechanisms of power and, especially in Spanish America, on the Indian question, as we have seen in the preceding chapters.

(v) In Spain itself tolerance of ethnic-religious minorities (Muslims, Jews) had come to an end by the first half of the 16th century. The total expulsion of the Moorish population in 1609 left the Crypto-Jews as the sole target of the ethnic-religious attacks of the inquisition. In terms of heresy proper, as opposed to apostasy and infidelity, the inquisition, from the 1520's onwards, rooted out any practices and theories which could be associated with protestantism, these ranged from humanist Erasmism to extreme forms of mysticism such as illuminism, so stopping its potential expansion. After the autos da fe of the 1550's - 60's, the majority of the trials of protestants almost entirely involved foreigners.
The only serious, mass religious dissidence in Spanish America was presented by the Indians. The major religious apparatuses of the Indians succumbed to the conquistadores' religion. However the popular beliefs, the local pagan priests or sorcerers and cults survived for varying periods, in the form of syncretic beliefs, juxtaposed cults or rejectionist movements. The two latter represented a serious threat to the Spanish church and Spanish republic in general. Without the knowledge, not to mention the control, of the Catholic institutions, apparatuses existing alongside and eventually in opposition to the church emerged or re-appeared, and provided the Indian masses with a world-view and practices which were different if not contradictory to those that the Spaniards wished to impose.

In contrast, the acceptance and expansion of syncretic processes like Guadalupe's or the patron saints', represented tactical concessions of the otherwise ethnocentric missionaries to the aborigines' beliefs, whose effects could be easily controlled by the clergy. The transformation of religious juxtaposition into political revolt against Spanish domination, such as the Pueblos' revolt and many others which were more local in character, highlights the 'symmetry' between religion and politics. If 'religious distress is at the same time the expression of real distress and the protest against real distress' as Marx asserted, these protests can acquire different degrees of consciousness and radicalisation. A continuity which it is difficult to overlook runs from little 'profanations,' such as not attending mass or ridiculing the inquisition and the Christian cult in general, to pan-Indian rebellions articulated in religious terms, such as the Pueblos' and Juan
Santos', and including more or less organised pagan or syncretic secret cults. In every case we are faced with an ideological substratum which is maintained, invigorated or created by specific religious agents and which, given a particular weakness of the political order and a particular disposition of the masses at a given time, is able to attempt to turn the social order upside down. Although still trapped in the categories of the past and borrowing heavily from the Indian and Christian traditions, religious protest was able in some cases to turn into political revolt. The dynamics of these transformations did not depend only on the ideological heritage, the liberating praxis of the Indians and the political vision of the prophet, but also on the character of the control of the dominant or would be dominant religious apparatuses and the political structures.
Conclusions

In the previous chapters we have analysed the economic and ideological structure of colonial Spanish America. In this section we will summarise our findings and discuss some outstanding problems.

a) The economic structure

The problem of determining the character of the mode of production in colonial Spanish America and Latin America in general has been an issue hotly debated by Latin American Marxists for the last 20 years and no doubt it will continue to be debated in the future.\(^{(i)}\) For students working in this field the problem is two fold. On the one hand there is the problem of defining mode of production in general and the feudal and capitalist modes of production in particular.\(^{(ii)}\) On the other hand there is the problem of applying these concepts to the colonial Spanish American social formations in a situation where studies in economic history have barely scratched the surface of the relations of production, productive forces and economic and political mechanisms of appropriation/expropriation of the economic surplus in colonial Spanish America. Despite these

\(^{(i)}\) The debate started with the publication of the work of A.G. Frank \(^{(1)}\) although the thesis of a colonial capitalism in Latin America had been developed in the 1940's by Bagu.\(^{(2)}\) The severe criticisms of this thesis (Laclau, Assadourian)\(^{(3)}\) clearly demonstrated the non-Marxist character of Frank's point of view as it was based on the sphere of circulation rather than production. These criticisms however fell short of developing an explanatory model which characterised the colonial Spanish American social formation from the perspective of the dominant relations of production. More recently this has been attempted for specific Spanish American regions.\(^{(4)}\)

\(^{(ii)}\) See the papers collected in Bartra et al 1976 in relation to Latin America, in Hilton 1976 in relation to Europe and the recent debate around the thesis of Wallerstein.\(^{(5)}\)
limitations we will try to characterise the colonial Spanish American social formations according to their modes of production and the relations of domination/subordination between them. This will require us in some cases to add additional elements to our definitions in Chapter 1.

1. **The slave mode of production.** The development of slave relations of production in the Indies was limited by the capacity of the state to check at an early stage the enslavement of large numbers of Amerindians. It was also limited by the incapacity of the Spanish state to obtain a share in the trans-Atlantic slave trade and the incapacity of the Spanish colonists to obtain the capital necessary for the importation of African slaves. Large numbers of African slaves were conspicuous in those parts of the Indies where the high value of specific commodities, accumulation of wealth in the hands of the Spaniards and the scarcity of Indian labour made slavery possible and necessary. By the mid 18th century the recovery of the Indian population in some regions and the population growth of the mestizo and poor white sectors in most other regions permitted a replacement of slave relations of production by other forms of labour. Furthermore the high cost of retention and reproduction of slave labour tended to erode the basis of the system. In this respect it is necessary to remember the effects of slave rebellions and maroonage, the low fertility rate of the slave population and the lack of solidarity of the landowning classes, sections of which protected escaped slaves.

Data shown in Chapter 3 demonstrate that throughout the colonial period the demographic importance of the slave population in the Indies was small. If we add to this the fact that a large number of slaves were not directly linked to the
productive process their importance diminishes even further, although this was compensated for by the important role in the market economy played by the enterprises which exploited slave labour. Two cases seem to escape this general characterisation: the early economy of the Spanish Antilles and 19th century Cuba. (iii)

In the first case we do not have statistics which permit us to establish the ratio slave/non slave in the general population, but however impressive the Indian slave trade might have been during the first half of the 16th century, up to 4 million according to the estimate of Las Casas, this represents only a small fraction of the aboriginal population of Spanish America which is estimated at c. 100 million. (7) Furthermore, for reasons which included the use of slaves in military actions and their harsh exploitation in gold mining and pearl-fishing, the system did not consolidate. Thus by the mid 16th century the number of slaves owned by the colonists was insignificant.

In the case of 19th century Cuba we are presented with a clear case in which the slave mode of production dominated the whole social formation. Its dominance is demonstrated by the numerical importance of the slave population, which constituted over 50% of the total, and its concentration in the most dynamic sector of the Cuban economy, sugar production. In this case the only way of maintaining and expanding sugar production up until the mid 19th century was the increasing importation and exploitation of slave labour. It was only in the latter half of the century that mechanisation of the productive process and the import of indentured servants permitted the creation of 'cells' of wage labourers within the industry. (8)

(iii) A third possible case is Venezuela during the 18th century. The evidence is however inconclusive. (6)
Indian communities and the tributary or Asiatic mode of production. Indian communities were the basic social units existing at the time of the conquest and they were politically organised in more or less structured state formations, loose federations or they remained autonomous. In the areas where political organisation was highly developed in prehispanic times (Mexico, Peru, Guatemala) Indian communities retained throughout the colonial period a strong demographic base and their own economy and culture. On the contrary, in the areas inhabited by Indian societies with weak or no state organisation, which roughly coincided with geographic areas which were sparsely populated, Indian communities virtually collapsed under the impact of the colonial wars, slave raids or harsh forms of exploitation or were slowly incorporated under Spanish rule through the missionary system.

The main characteristics of the Indian communities during the colonial period were a predominantly subsistence economy, dependence on the state for the retention of their main means of production, land, and the extraction of a variable amount of surplus regulated by the state. This surplus took the form of tribute paid in labour, kind or money and it was granted to Spanish colonists, the church, or appropriated directly by the state. Apart from this form of surplus extraction, which was common to almost all Indian communities, a series of coercive and contractual relations affecting the communities of certain regions permitted an additional transference of surplus to the Spanish entrepreneurs. Through the repartimiento system the colonists had access to the labour power of the communities which was coerced into working for a remuneration well below the ongoing market rate. The forced commerce of the Indians
with the local bureaucrats, corregidores, permitted the latter and their associates, the local merchants, to sell to or to buy from them at abusive rates and to create a system of indebtedness of the Indians which it was possible to transform into adscription to the haciendas. Finally the need for money to pay tributes or other exactions or to supplement the scarce land resources of the communities compelled many of them to sell their labour power to the haciendas or other Spanish enterprises or to work for the haciendas in exchange for the usufruct of land.

Thus the tributary mode of production, inherited by the Spanish state from the prehispanic states, was constantly eroded by the exactions of the colonists which were granted to them or tolerated by the state, and by its own economic needs. This resulted in the destruction of certain Indian communities and the temporary or continuous demographic decline of others through escape of the commoners from their communities, retention of the tributaries by Spanish entrepreneurs, famines and so on.

In this respect the balance between the surplus which the communities could obtain given their land resources and markets and the amount of the exactions demanded from them was crucial. The interests of the state to retain an important source of finance, the church interest in the christianisation of the Indians and the retention of a source of finance and power and the Indians themselves through revolts, litigation and petitions to the crown, permitted the maintenance of this (precarious) balance.

The purest form of the tributary mode of production in Spanish America was the missionary system. Although there were important connections with the market, the isolation of the communities from the Spanish colonists and the firm grip
of the religious orders over them permitted the extraction of the community surplus entirely for the religious, economic or military needs of the state. By the end of the 18th century the missionary system had been virtually dismantled under the pressure of the Bourbon reforms. However the Indian communities retained their vitality in some of the most important colonies well into the 19th century(iv) when the independent liberal states carried out massive expropriations of Indian lands.

3. Feudalism. Marxists have defined the feudal mode of production in different ways or with different emphasis. For some the defining elements are feudal land property and serfdom in a wide sense, that is including seigneurial and monopoly rights as well as serfdom proper (Dobb, Takahashi, Hilton), production for use (Sweezy), feudal property and parcellisation of sovereignty (Cahen) or a combination of all these characteristics (Anderson).(10) We have chosen the first of these definitions because it is possible to apply it beyond the concrete social formations on which the study of feudalism was originally based and allows us to fully grasp the essential elements of the mode of production: that is extraeconomic but limited coercion to extract the surplus labour from the direct producers and (feudal) ground rent.(v)

(iv) Thus in Mexico in c. 1800, just over half of the total population of 5.8 million was composed of Indians living in their communities and a similar situation can be guessed at for Peru, Upper Peru and Guatemala since the total Indian population of these colonies (that is community and non community Indians) was around 60% of the total population. (9) This of course does not mean that the dominant mode of production in these colonies was the tributary one, since the major part of the surplus produced by the communities did not serve to reproduce the mode of production as was the case in the prehispanic societies; quite the opposite was the case.

(v) To include parcellisation of sovereignty in our definition of feudalism would limit feudalism to a particular feudal phase. As Anderson himself has explained, "so long as aristocratic

cont'd on p. 567
Since the characterisation of colonial Spanish America as feudal or capitalist has been the main point of controversy among Latin American Marxists (12) we will review here all the important forms of labour used in the economy apart from slavery and clear-cut tributary relations of production.

i) The encomienda. As stated in Part II, the right of the encomenderos over the tribute of the Indians did not include property rights over Indian community lands, except in a few cases. Although encomenderos appropriated lands originally belonging to the Indians this did not constitute the title to exploit Indian labour, nor were the Indians dispossessed of land so as to depend exclusively on encomenderos' land. Thus the combination of landed property and serfdom peculiar to feudalism did not occur apart from a few cases. The alienation of the royal tribute to private individuals, always limited to two or three generations, helped, however, to establish feudal relations of production through several mechanisms. Firstly the tribute paid to the encomenderos in labour permitted the voluntary or forced retention of the Indians in the agrarian enterprises and their enserfment. Secondly, tribute paid in kind or money and especially that paid in labour permitted the possibility of expanding the landed property blocked a free market in land and factual mobility of manpower. Viz. through private extra-economic coercion and personal dependence rural relations of production remained feudal and the social formations whose absolutist states negated this parcellisation of sovereignty remained dominated by the feudal mode of production. Production for use marks only a phase, albeit the most characteristic of the feudal mode of production, and therefore should not be included in the definition of feudalism. To do this would exclude (feudal) rent paid in money which as Marx noted "presupposes a considerable development of commerce, or urban industry, of commodity-production in general, and thereby of money circulation." (11)
property under the control of the encomenderos, through purchases from Indians or composiciones, and therefore weakened the Indian landed patrimony or at least its future capacity for expansion. Finally the tributary pressure and other actions made some commoners prefer enserfment in the haciendas.

ii) Repartimiento. The repartimiento system, as a continuation of personal services under the encomienda but involving a wider range of Spanish individuals or institutions and under stricter state control, shared the basic characteristics of the former and tended to produce the same effects but in a more limited way. Thus, the repartimiento system also constituted a tributary and not a feudal relation of production, and also permitted the expansion of the mainly feudal relations of production represented by the hacienda through the retention of workers, the expansion of Spanish landed property and, especially in the case of the mining repartimiento, the escape of Indian commoners to the haciendas and other enterprises.

iii) The yanacona system was a feudal relation of production which evolved from an informal agreement between the Peruvian Indians and landowners to a codified relation in the 1570's and to a more loose but still feudal relation of production towards the end of the colonial period.

iv) Coercive and temporary peasant peonage. Although legally free waged workers, the majority of peons suffered a series of more or less informal forms of coercion which severely limited or totally impeded their geographical mobility. In Chapter 5 we have discussed 3 main types of permanent peonage: debt, adscripted and free peonage. The two former were clearly a feudal relation of production as long as the peons, who had a restricted mobility, had also the usufruct of a
subsistence plot. This was not the case for indebted peons working in mining and urban textile mills and probably not the case for all the indebted peons in the haciendas.\footnote{Data on this aspect of the colonial hacienda are difficult to come by. However it seems that a majority of the permanent peons had the usufruct of a small subsistence plot on the haciendas or rented lands on them. (13)} In these latter cases we can speak of a form of labour which was transitional between feudalism and capitalism in which the workers, free of the means of production and therefore without their own economies are subject to servitude in a wide sense.

v) Tenants. Large and medium size tenants were agricultural entrepreneurs and not direct producers and do not need a separate analysis. Small size tenants were connected to the haciendas through the payment of rent in labour, kind or money. In all three cases peasants retained their own economy and they can therefore be considered transitional forms between feudalism and capitalism as long as the tenants were free of extra-economic coercion.

vi) The partido system in mining was also a transitional form of labour. Here the direct producer although having his own economy shared the product of his labour with the owner as a form of ground rent. However ground rent did not exhaust the relation since the owner had invested capital in the mine in the form of shafts, tunnels and so on.

vii) Waged labour. Permanent and temporary free peonage in the haciendas, mines and industry constituted, of course, a capitalist relation of production. However they did not necessarily constitute full bodied capitalism unless the workers
participating in this relation of production were at the same time
totally dispossessed of the means of production. This did not
always happen in the case of the temporary labour employed by
the haciendas since a large proportion of the temporary waged
labourers belonged to Indian communities and needed only to
supplement their social and subsistence needs through waged
labour.

The different types of labour analysed above occurred with
varying degrees of intensity in the different Spanish American
colonies at different times. The occurrence, expansion and
decline of these forms were a result of the demographic changes
in both the Indian and non Indian population, the creation of
markets for the particular lines of production of the Spanish
enterprises, the intervention of the state to regulate labour
relations, property rights and so on and the capacity of the
Indian communities and other direct producers to resist land
expropriation, tributes and the harsh forms of exploitation. It
is impossible to summarise the development of these forms of
labour and their combination in particular areas without drasti-
cally over-simplifying. However we have discerned four patterns
of development of the demographic structure, the impact of the
markets and political factors which help to explain the develop-
ment of the different forms of labour and which are summarised
below. (vii)

1. Slave colonies or enclaves occurred in colonial Spanish
America where a total or relative decrease of the Indian population,
the accumulation of money wealth and the possibilities for pro-
duction of commodities of high profitability, such as sugar, gold,
cacao and so on, permitted the import and exploitation of African

(vii) We do not consider here the subsistence sector and petty
commodity producers.
slaves. This was the case in coastal Peru, western Colombia, Cuba late in the colonial period, and probably Venezuela during the 18th century.

2. In the colonies where the aboriginal population was scarce or rapidly decimated and the possibilities for production of highly profitable items were minimal, as in Chile, Argentina, Paraguay and Venezuela, the payment of tributes in labour to the encomenderos continued for a long period and was tolerated by the state. This permitted a heavy tribute payment for the Indians and the possibility of enserfing some of them. The growth of the non Indian population in Argentina and especially in Chile and the development of an export economy, Paraguay excepted, permitted the development of new relations of production during the late 17th century and 18th century. By the end of the colonial period Chilean agriculture and mining relied on service tenants and indebted peons while Argentinian cattle ranches employed a mixture of black slaves and debt peons. In Venezuela a favourable integration into the world market in the late 17th century permitted the expansion of the haciendas with a labour force largely composed of black slaves.

3. In the areas with a large, politically organised Indian population, a weak presence of the state and a limited impact of the market, labour tribute was superseded relatively early and was replaced by the repartimiento system and forced commerce with the corregidores which continued virtually for the rest of the colonial period. This plus a high rate of tribute permitted the exploitation of the Indian communities and their indirect connection with the regional or international market. A main feature of these communities was the retention of their landed patrimony, except in areas close to the incipient
Spanish markets, and the preservation of their own mode of production. This situation prevailed in southern Mexico, Guatemala and, to some extent, in highland Colombia and Andean Peru. (viii)

4. In central Mexico the existence of a large and politically organised aboriginal population, combined with mineral wealth and the early development of a civil and religious bureaucracy, meant the early suppression of tribute paid in labour and the repartimiento system. At the same time the appropriation of large areas of Indian land, the acculturation and miscegenation of sectors of the Indian population and extra-economic coercion allowed, by the 17th century, the creation of a dependent population on the haciendas linked to them by adscription or debt peonage. The growth of both the Indian and non Indian population during the 18th century created the conditions for a slow replacement of debt and adscriptive peonage on the haciendas by a wide variety of transitional and capitalist forms of labour, especially in the areas close to large urban centres. By 1800 a large number of haciendas heavily relied on temporary peons hired from the Indian communities and a small core of free permanent workers, although adscripted and debt peonage were probably still predominant. In mining free labour was the rule and the partido system was being replaced, with the strong opposition of the workers, by

(viii) The impact of the mining export economy in Peru and Upper Peru and Colombia which created important Spanish markets and permitted the expropriation of Indian lands was reduced by the mining recession of the late 17th century and early 18th century. The initial accumulation of lands by the Spaniards and the disruptive effects of the mining repartimiento, created the conditions for the expansion of feudal relations of production, the ganecona system, especially in Upper Peru.
purely waged labour. Finally the embryo of a working class, legally free and dispossessed of their means of production, had been created in the form of urban workers who were not protected by guild regulations and a wandering population depending exclusively on the sale of its labour power to obtain its means of subsistence.

b) The ideological structure

At the ideological level the Spaniards transferred to America the Catholic doctrine, together with its apparatuses and practices. Along with the doctrinal corpus, inherited from medieval Catholicism and more or less codified in Trent, a hierarchal system of administration and a set of practices which were fairly standardised were introduced. Theological and juridical debates which originated in Europe in the period under study, such as predestination/free will, moral rigourism/laxism, and the juridical questions of competence in the generation of power inside the church in such areas as appointments and the rights of the church and the crown in economic and administrative problems, were reproduced in the Indies. Specific issues which were derived from the colonial experience, such as social policy towards the Indians and "spiritual conquest", created an even more complex set of cleavages inside the American church. Furthermore the contradictions inside the church between the religious and secular and the high and low clergy together with rivalry between the different religious orders were aggravated by the contradictions outside the church. The particular interests of sectors of the royal bureaucracy and sectors of civil society aggravated these contradictions and added new ones, thus the church divided along indigenist and pro-colonist lines, creole and Spanish factions developed and regalist and anti-
regalist trends were felt within it. Specific political alliances emerged between sectors of the clergy, the bureaucracy and civil society producing important modifications in the religious ideology, apparatuses and practices.

The church's first legitimising acts in relation to Spanish power in America were the papal bulls of 1493. Subsequent bulls and the elaborations of 16th century Spanish theologians, from which the jurists borrowed heavily, gave Spanish expansion a respectable facade. The process of construction of this legitimisation was the result of the struggle of different factions of the Spanish church over the defence of the rights of the Amerindians and the interests of the colonists. The recourse to medieval scholastics and classical philosophy as well as the political thought of the times produced a sophisticated theory which, while condemning the blatant abuses of the colonists, justified colonialism in terms of rights, such as propagation of the Catholic faith and communication.\(^{(ix)}\)

For the common conquistador, however, the simple papal donation, plus the cultural and particularly religious ethnocentrism, which derived from the conquest itself and were quickly elaborated by religious and secular chroniclers, sufficed. The stereotype of the Amerindian as barbaric, idolater, sanguinary and sodomitic was in the making.

The superiority of the Spaniards and the sanctity of the conquest were confirmed by the constant appearances of St. James

\(^{(ix)}\) We are referring here to Vitoria, undoubtedly the most representative figure of 16th century Spanish theology (see Chapter 7).
and the Virgin Mary siding with the Spaniards against the
Indians, and the later veneration of their images; St. James
had also appeared in this manner in Spain during the reconquest
against the Moors. As with the chronicles, they represented
the symbolic expression of the ideology of the conquistadores,
being creations and, at the same time, creators of their world-
view which, crudely, justified their slave raids, encomiendas
and other atrocities.

The missionary practice of the zealous religious constructed
a different social reality. For the early Franciscans of
Mexico the Indian was a "noble savage" incapable of sin, an
everlasting child to be governed by the soft but firm hand of
the missionary. They were to be separated from the traps of
the devil, which was how they saw paganism, and segregated from
the evil of the Spanish society represented by the colonists.
Accompanying this perception of the Indian there was in their
thought a quasi-millennial vision of the conquest. They saw
the Spaniards as the elected people and the Indians as a new
Jerusalem where the ideals of the primitive church would be
realised.

Still another concept of the Indian and the conquest ap-
peared in the thought of missionaries such as Las Casas and
other Indigenists of the Dominican tradition. For Las Casas
the image of the noble Indian who was human, intelligent and
able and willing to receive the Christian faith was accompanied
by at least partial abandonment of the conception of the
Indian as a minor. Indian communities and nations should
have a certain political autonomy and be able to accept freely
the sovereignty of the king and the Christian faith; this is
in marked contrast to the compulsory christianisation of the
Indians proposed by the Franciscans. For Las Casas the
conquest was a horrible episode for which the conquistadores were bound to compensate the Indians otherwise the colonists and Spain itself would receive God's punishment.

Thus the conquest and its effects were expressed in Spanish discourse mostly in religious categories. The ideological heritage of the Dominicans (Aquinas) and Franciscans (Joachinism, Scotus) permeated the world-view of the missionaries, but practice in the missionary field which put them in contact with the extortions of the colonists on the one hand, and with the paganism and rejectionist movement of the Indians on the other was more important.

The secular clergy, without a strong intellectual tradition, and more closely connected to the interests of the colonists, adopted and elaborated the colonists' conception. This conception was, however, modified by the results of the theological debates and crown policies which placed limits on the extortions of the colonists and made rulings on the way in which the conquest should be conducted and the policies of the church at international, Spanish and regional levels; these were expressed in papal bulls, councils, and so on.

Among the Indians, the symbolic universes constructed by prehispanic thought were completely smashed by the military and religious apparatuses of the Spaniards and only partial recovery or reconstruction of the underground cults was permitted. These were organised and maintained by the disaffected strata of the Indian population with occasional outbursts of socio-religious protests when the fragility of the political and religious apparatuses of the Spanish state permitted.

The political effects of the practices of the Spanish church in relation to the Indians were multiple. The royal
bureaucracy and the church acted in co-ordination to take advantage of the political dispersal of the Indian ethnic groups.\(x\) They did this by smashing the political and religious leadership of the organised states and by attracting local chieftains to Catholicism by means of conceding privileges, or bribing whole communities with presents, promising defence against enemy raids, providing health care and improving agriculture. The destruction of prehispanic religious apparatuses and the emergence of new ones prevented the survival of representations of the prehispanic social order and the development of new representations and practices which could profane the colonial order in the most sensitive legitimising mechanism of the conquest. Syncretism, whether guided or not, but in practical terms under the control of the missionaries, represented an appropriation of the symbolic power of the old deities assimilated to the cognitive and normative structures of Catholicism. The opposite process, that which equated pagan deities with Christian devils, operated in the same direction, that is it deprived the Indian masses of alternative means of constructing their social reality and, at the same time, incorporated new elements in order to explain, to the Indians and to themselves, the recurrence of religious rejections and juxtapositions.

In the political sphere, the church assumed a compromising

\(x\) Missionaries, through their knowledge of the Indian tongues, the keeping of baptismal records, the hearing of confessions, their first hand knowledge of the Indian communities and their relatively accurate knowledge of the prehispanic religions were in a particularly favourable position to detect revolts and heretical movements. On the other hand their authority in the Indian towns and their positive works such as the protection of the Indians against abuses, put them in a favourable position to solve conflicts and bring disaffected Indians back under colonial control.
attitude. Black and Indian slavery and Indian forced labour
was sanctioned by the church with the exception of Indigenist
churchmen and their actions and the material interests of the
crown permitted the virtual elimination of Indian slavery,
certain improvements in the conditions of black slaves and the
gradual decrease of the extortions from the Indians. In
relation to this change not too much credit must be given to
the church as a whole. Churchmen as individuals and the
different branches of the Spanish church as institutions
profited by the use of black slaves and Indian forced labour
until the end of the colonial period. In preaching resignation
and obedience to the constituted power to Indians, blacks and
half-castes, the church was an effective apparatus of domina­
tion of the subjected peoples. If we add to this the training
of the mission Indians and plantation slaves in new skills,
productive practices, language and political and urban organi­
sation we can conclude that the church played a role of
fundamental importance in domesticating the native peoples. (xi)

(xi) Bishop Abad y Queipo of Michoacan at the close of the
colonial period summarised the task of the Spanish church in
America in the following way:
"The people live without house, without address, almost
erratically, ... show us other means which can keep these
classes in subordination to law and government other than the
religion kept in the depth of their hearts through the preach­
ing and the counsel of the ministers of the church in the
pulpit and the confessional. They are therefore the true
custodians of law. They are the ones who must have, and
actually have, more influence over the peoples' heart and the
ones who work more in keeping it obedient and submissive to
your Majesty's sovereignty." (14)
The initial ambiguity of the church towards the Spanish colonists, because of the presence within its ranks of an important sector of Indigenists, was transformed into one of clear alliance. Despite this the church continued to play a protective role in the peripheral, missionary areas of the continent, where it was a moderating force with respect to the colonists' extortions of the Indians. In this respect it is necessary to differentiate between the regular and secular clergy. The latter were, in general, the closest ally of the colonists, while the regular orders remained allied to the royal bureaucracy. This correlation is however loose, since the political, ideological and economic interests of the religious orders, the interests of the bureaucracy and the contradictions between sectors of the clergy and the colonists varied widely both chronologically and geographically.

The church's wealth, in the form of tithes, donations and investments, which was loaned to a large extent to the oligarchy and bureaucracy, created an objective material link with the dominant classes. The most clear case of this alliance was represented by nuns' dowries and chaplaincies. Both were virtually an investment of capital by which rich families ensured the well-being of their numbers by depositing a sum of money to be invested and administered by the church which would provide them with a prestigious means of subsistence. This real interdependence of the oligarchy and the church meant that the enormous wealth of the church was never threatened by the colonists. The significant exception to this was the expropriation of the Jesuit wealth in Paraguay in the 1720's and 1730's, but in this case it was the result of the scarcity of the Indian labour force which was monopolised
by the Jesuits in their missions. On the other hand, the virtual appropriation of a significant amount of church capital by Spain at the close of the colonial period, was rightly seen by the creoles as an illegitimate decapitalisation of the colonies to sustain imperial policies. On the side of the church this measure resulted in the insolvency of many chaplaincies served by the lower clergy and deprived them of an important and sometimes their sole means of sustenance. This plus the severe restriction of church privileges at the end of the 18th century meant that important sectors of the clergy became disaffected with the crown.

From the beginning of colonisation, the Spanish crown subjected the church to its control. The patronage laws created a pattern of political and administrative dependency in relation to the crown and its bureaucracy. The crown liberally granted exemptions from this control in order to obtain a more efficient conversion of the Indians, recovering the delegated power after the process of domestication of the Indian communities had been achieved. It skilfully played on the conflicts of interests between the secular and regular clergy and between the clergy and colonists, in order to ensure the profitability of the colonies as well as to retain and aggrandise its control over the mechanisms of power. Thus it aimed at the elimination of semi-feudal jurisdiction over, and use of the Indian labour force and maintained its control over the church as a whole. Thus the first political initiatives of the church, and particularly the religious orders, to control the abuses of the colonists were practically eliminated around 1570, leaving the political decisions wholly in the hands of the royal bureaucracy.
The autonomy of the religious orders, the control of which rested with Rome and at the grass-roots level rather than with the crown, brought about a long struggle to put them under the latter's control, either directly, through a royally nominated General Commissary or indirectly, through the subjection of the missions of the regular orders to bishoprical authority, which was itself under royal control. In the second half of the 18th century this policy culminated in the expulsion of the Jesuits, a frustrated reform of the regular clergy, suppression of the juridical privileges of the clergy and some half-hearted attacks on the wealth of the church.

As a political force or "pressure group" at court level, the church was on the wane, while the jurists and military men were emergent strata both in Spain and America. (xii)

Naturally the church as a body reacted against the imposition of restrictions on its juridical, political and economic rights. At the top level a group of prelates supported the reformism of the enlightened despots considering it to be beneficial both for the church and Spain. Indeed the monarchy did not go too far in its reforms, it repressed or allowed the Inquisition to repress those reformist trends in the high bureaucracy which it considered too radical and, with the explosion of the French revolution and its propaganda

(xii) The diminishing privileges of the church were accompanied by the emergence of the military: reorganization of the militia, concession of fuetos (special juridical privileges), etc. At court level the clergy, particularly the ones with strong Roman links, was utterly mistrusted by the 1780's and anti-clerical "letrados" (jurists) like Campomanes, Roda, Florida-blanca, or military men like Godoy became the king's counsellors. (15)
in the empire, the enlightened despots had to resort to the Inquisition to "legitimately" repress political rebels or literature.

In addition to its decline in economic and political terms during this period, the church lost intellectual influence over the leading strata of society. The need for efficiency in the economic and political management of the empire opened the door to the introduction of new scientific and political ideas which were agreeable to the most radical reformists. These began to question areas of social reality which had until then been considered dogma, such as the divine origin of the monarchy, and also ascribed to the king the quality of Vicar of God, thus devaluing the role of the pope. This prolonged erosion of the political, ideological and economic power of the church which began in the mid 18th century was accelerated by the "export" of the French bourgeois revolution to Spain. The crisis of authority of 1808 found the American church divided internally by national loyalties (Spaniards and Creoles) and resentful of the limitation of its privileges, consequently it reacted in contradictory ways. Important sectors of the Mexican clergy, for instance, participated in the radical social upheaval of independence (1610-15) led by the Cures Hidalgo and Morelos, while the bishopric authority excommunicated them and had them executed by the secular power. In other areas of Spanish America the lower clergy participated actively in the war of independence according to their national or class loyalties, while the hierarchy oscillated between one or other faction in order to retain their ideological power, which was indeed enormous. "Liberals" like Bolivar had to recognise the political importance of the support of the clergy for independence and to ensure its loyalty. How this power was maintained during independence is however another story.
Appendix la: Average annual prices of maize in Mexican urban centres: 1745-1815 (in reales per fanega)
Appendix la: Average annual prices of maize in Mexican urban centres: 1745-1815 (in reales per fanega.

(2) Hamnett 1971: 76-7. Annual prices for 1788-97 are either the average of the prices of the first and second semester (1788, 1790-1, 1794) or the prices of either semester only.
(3) Brading 1978: 181-2. Annual prices for the period 1745-68 correspond to the average of both towns, from 1769 to Silao only.
Appendix 1b: Annual foodstuffs prices in South American urban centres (1750-1820) (in reales per fanega/caiga)
Appendix 1b: Annual foodstuffs prices in South American urban centres (1750-1820) (in reales per fanega/caiga)


<table>
<thead>
<tr>
<th>Name, location and main product(s)</th>
<th>Period</th>
<th>Number of years</th>
<th>Sale price</th>
<th>Inventory value</th>
<th>Net income (annual average)</th>
<th>Rate of return</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Xochimancas (Morelos) sugar cane</td>
<td>1681-3</td>
<td>(2)</td>
<td>82,000</td>
<td>c. 194,821</td>
<td>8,516</td>
<td>4.4%</td>
</tr>
<tr>
<td>2) San Juan Bautista (Valley of Oaxaca) grains</td>
<td>1789-95</td>
<td>(5.5)</td>
<td>60,000</td>
<td>60,000?</td>
<td>1,554</td>
<td>(2.6)</td>
</tr>
<tr>
<td>3) Dolores (Chihuahua) wheat, also livestock, maize &amp; other crops</td>
<td>1790-1820</td>
<td>(31)</td>
<td>45,400</td>
<td>37,000</td>
<td>1,060</td>
<td>2.9%</td>
</tr>
<tr>
<td>** 4) Atlacomulco (Morelos) sugar cane</td>
<td>1702-9</td>
<td>(7.5)</td>
<td>c. 50,000</td>
<td>-</td>
<td>-183</td>
<td>(-0.4%)</td>
</tr>
<tr>
<td>5) Ozumba, Ojo de Agua &amp; Loreto (c. 35 miles N.E. of Puebla City) barley, beans, maize</td>
<td>1767-75</td>
<td>(7%)</td>
<td>107,711</td>
<td>(1775)</td>
<td>2,685.2</td>
<td>2.5%</td>
</tr>
<tr>
<td>6) La Noria, Teoloyuca &amp; Santa Luganda (c. 40 miles N.E. of Puebla City), barley, beans, maize</td>
<td>1767-75</td>
<td>(7%)</td>
<td>111,312</td>
<td>(1775)</td>
<td>528.6</td>
<td>0.5%</td>
</tr>
<tr>
<td>7) San Jeronimo (administrative centre in southeastern Puebla but lands in Oaxaca, Vera Cruz &amp; Puebla) livestock</td>
<td>1762-67</td>
<td>(5½)</td>
<td>175,000</td>
<td>195,541</td>
<td>13,099.5</td>
<td>6.7%</td>
</tr>
<tr>
<td></td>
<td>1767-76</td>
<td>(9½)</td>
<td>5,106.1</td>
<td>2.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name, location and main product(s)</td>
<td>Period</td>
<td>Number of years</td>
<td>Sale price</td>
<td>Inventory value</td>
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</tr>
<tr>
<td>8) <strong>Los Reyes</strong> (Puebla City) wheat</td>
<td>1767-76</td>
<td>(10)</td>
<td>38,917 (1775)</td>
<td>1,374.4</td>
<td>3.5%</td>
<td></td>
</tr>
<tr>
<td>9) <strong>San Pablo</strong> (Tepeaca, Puebla) wheat &amp; other grain.</td>
<td>1767-82</td>
<td>(16)</td>
<td>16,200 (1790)</td>
<td>34,507 (1772)</td>
<td>-1,244.8</td>
<td>-3.6%</td>
</tr>
<tr>
<td>10) <strong>Amaluca &amp; San Lorenzo</strong> (Puebla City) maize</td>
<td>1767-76</td>
<td>(10)</td>
<td>54,471 (1775)</td>
<td>552</td>
<td>1.0%</td>
<td></td>
</tr>
<tr>
<td>11) <strong>Chico-mocelo &amp; Cuatenepec</strong> (eastern Morelos) wheat &amp; maize</td>
<td>1767-71</td>
<td>(5)</td>
<td>161,000 (1776)</td>
<td>23,860</td>
<td>14.8%</td>
<td></td>
</tr>
<tr>
<td>12) <strong>Hacienda de Ovejas</strong> (Linares, n. Leon) livestock</td>
<td>1767-82</td>
<td>(15)</td>
<td>43,808.4 (1772)</td>
<td>2,125.8</td>
<td>4.9%</td>
<td></td>
</tr>
<tr>
<td>13) <strong>La Barranca</strong> (s. of Queretaro) grain, livestock.</td>
<td>1767-76</td>
<td>(9.2)</td>
<td>32,000 (1776)</td>
<td>49,871 (1770)</td>
<td>1,877.4</td>
<td>3.8%</td>
</tr>
<tr>
<td>14) <strong>San Lucas</strong> (s. of Queretaro) grains</td>
<td>1767-81</td>
<td>(14.2)</td>
<td>16,597 (1781)</td>
<td>53,926 (1767)</td>
<td>1,716.7</td>
<td>3.2%</td>
</tr>
<tr>
<td>15) <strong>Cienaguilla &amp; Tetillas</strong> (Fresnillo)(col. Zacatecas)</td>
<td>1767-72</td>
<td>(5.5)</td>
<td>669,816.4 (1767)</td>
<td>27,206.5</td>
<td>4.1%</td>
<td></td>
</tr>
<tr>
<td>16) <strong>San Joseph de Linares</strong> (Nuevo Leon).</td>
<td>1767-72</td>
<td>(5.5)</td>
<td>75,665.7 (1767)</td>
<td>8,757.4</td>
<td>11.6%</td>
<td></td>
</tr>
<tr>
<td>17) <strong>Tabaloapa</strong></td>
<td>1767-73</td>
<td>(6.5)</td>
<td>25,171</td>
<td>807.4</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>Name, location and main product(s)</td>
<td>Period</td>
<td>Number of years</td>
<td>Sale price</td>
<td>Inventory value</td>
<td>Net income (annual average)</td>
<td>Rate of return</td>
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</tr>
<tr>
<td>18) Toluquilla (Guadalajara hinterland) livestock, grains.</td>
<td>1767-73</td>
<td>(6.2)</td>
<td></td>
<td>56,104 (1767)</td>
<td>3,399.4</td>
<td>6.1%</td>
</tr>
<tr>
<td>** 19) San Antonio de Quemada (Guadalajara hinterland) livestock</td>
<td>1785-88</td>
<td>(4)</td>
<td>19,000</td>
<td>-</td>
<td>5.0%</td>
<td></td>
</tr>
<tr>
<td>** 20) San Nicolas (Guadalajara hinterland) maize, livestock</td>
<td>1718-21</td>
<td>(4)</td>
<td>12,000</td>
<td>-</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>21) La Parada (San Luis Potosi) livestock.</td>
<td>1767-76</td>
<td>(9.5)</td>
<td>62,434 (1778)</td>
<td>62,434 (1778)</td>
<td>4,328</td>
<td>6.9%</td>
</tr>
<tr>
<td>** 22) San Juan de los Otates (Leon-Bajio) Maize</td>
<td>1814-18</td>
<td>(5)</td>
<td>41,886 (1810)</td>
<td>509</td>
<td>1.2%</td>
<td></td>
</tr>
<tr>
<td>** 23) Saug de Armenta (Leon) maize</td>
<td>1827-39</td>
<td>(13)</td>
<td>27,293 (1823)</td>
<td>637</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>** 24) Juchitlan el Grande (n.e. of Queretaro Bajio) maize &amp; livestock.</td>
<td>1753-62</td>
<td>(10)</td>
<td>90,000 (1752)</td>
<td>4,604</td>
<td>5.1%</td>
<td></td>
</tr>
<tr>
<td>** 25) Chapingo (Valley of Mexico) Pulque, stock and grain</td>
<td>1800-05</td>
<td>(6)</td>
<td>123,000 (1776)</td>
<td>193,082</td>
<td>10,940</td>
<td>5.7%</td>
</tr>
<tr>
<td>** 26) Ojo de Agua (Valley of Mexico) pulque</td>
<td>1800-05</td>
<td>(6)</td>
<td></td>
<td>140,442</td>
<td>9,909</td>
<td>7.1%</td>
</tr>
<tr>
<td>Name, location and main product(s)</td>
<td>Period</td>
<td>Number of years</td>
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<tr>
<td>27) Santa Lucia (Valley of Mexico) livestock</td>
<td>1582-6</td>
<td>(5)</td>
<td>17,000</td>
<td>4,638 (1776)</td>
<td>27.3%</td>
<td></td>
</tr>
<tr>
<td>livestock</td>
<td>1654-74</td>
<td>(21)</td>
<td></td>
<td>18,594.7</td>
<td>16,563.2</td>
<td></td>
</tr>
<tr>
<td>livestock</td>
<td>1724-29</td>
<td>(6)</td>
<td></td>
<td>51,097</td>
<td>4.4%</td>
<td></td>
</tr>
<tr>
<td>livestock-pulque</td>
<td>1752-57</td>
<td>(6)</td>
<td></td>
<td>40,000</td>
<td>3.4%</td>
<td></td>
</tr>
<tr>
<td>pulque-livestock</td>
<td>69-73</td>
<td>(5)</td>
<td>660,140</td>
<td>1,172,010 (1776)</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>28) Venezuela Plantation</td>
<td>1645-52</td>
<td>(7)</td>
<td></td>
<td></td>
<td>10,000</td>
<td>3.5%</td>
</tr>
<tr>
<td>Capi, (Valley of Capi, coast west of Caracas) cacao</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Colombia</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>29) Chamicera (west of Santa Fe) livestock</td>
<td>1767-74</td>
<td>(7)</td>
<td>41,000</td>
<td>30,379</td>
<td>3,763.8</td>
<td>12.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1774)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30) Abeluco, Guatíbar and</td>
<td>1762-7</td>
<td>(5)</td>
<td>9,717</td>
<td>15,924</td>
<td>843.7</td>
<td>5.3%</td>
</tr>
<tr>
<td>Pañon (Antioquia) maize, livestock.</td>
<td></td>
<td></td>
<td>(1778)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31) El Tejar (Pasto) tiles, bricks, some sugar</td>
<td>1762-7</td>
<td>(5)</td>
<td>2,849</td>
<td>2,404</td>
<td>287.9</td>
<td>12.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1778)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>32) Huara or &quot;el Ingenio&quot; (Huara, central coast) sugar cane</td>
<td>1691-95</td>
<td>(4.8)</td>
<td>76,000</td>
<td>109,345</td>
<td>6,210</td>
<td>5.6%</td>
</tr>
<tr>
<td></td>
<td>1695-1710</td>
<td>(15.3)</td>
<td>(1632)</td>
<td>135,745</td>
<td>6,518</td>
<td>4.8%</td>
</tr>
<tr>
<td></td>
<td>1710-1721</td>
<td>(10.8)</td>
<td></td>
<td>150,935</td>
<td>6,031</td>
<td>4.0%</td>
</tr>
<tr>
<td></td>
<td>1751-55'57(30)</td>
<td></td>
<td></td>
<td>196,178(30)</td>
<td>8,199</td>
<td>4.1%</td>
</tr>
<tr>
<td></td>
<td>1762-66</td>
<td>(5)</td>
<td></td>
<td>148,500(30)</td>
<td>14,970</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>249,642 (1772)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name, location and main product(s)</td>
<td>Period</td>
<td>Number of years</td>
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</tr>
<tr>
<td>33) Pachachaca (Cuzco) sugar cane</td>
<td>1760-04</td>
<td>(5)</td>
<td>144,000</td>
<td>227,319.3</td>
<td>20,572.7</td>
<td>9.1%</td>
</tr>
<tr>
<td></td>
<td>1769-71</td>
<td>(3)</td>
<td></td>
<td></td>
<td></td>
<td>7.0%</td>
</tr>
<tr>
<td>34) Bocanegra (Callao, Lima) sugar cane</td>
<td>1762-66</td>
<td>(5)</td>
<td></td>
<td>311,268.6</td>
<td>17,895.3</td>
<td>5.7%</td>
</tr>
<tr>
<td>35) San Jose de Nazca (Ica, s. coast) vineyards</td>
<td>1762-66</td>
<td>(5)</td>
<td>187,905</td>
<td>247,729.8</td>
<td>35,639.8</td>
<td>14.4%</td>
</tr>
<tr>
<td>36) San Jose de Chunchanga (Ica) vineyards</td>
<td>1762-66</td>
<td>(5)</td>
<td></td>
<td>131,482.4</td>
<td>15,385.4</td>
<td>11.7%</td>
</tr>
<tr>
<td>37) Vicho (Cuzco), grain (panlevar)</td>
<td>1762-66</td>
<td>(5)</td>
<td>21,500</td>
<td>21,651</td>
<td>1,247.8</td>
<td>5.8%</td>
</tr>
<tr>
<td>38) Huari (Huancavelica) grain</td>
<td>1762-66</td>
<td>(5)</td>
<td>7,584</td>
<td>7,584.4</td>
<td>1,057</td>
<td>13.9%</td>
</tr>
<tr>
<td>39) Yanatuto (Huancavelica) livestock</td>
<td>1762-66</td>
<td>(5)</td>
<td>6,800</td>
<td>6,528.9</td>
<td>461.2</td>
<td>7.1%</td>
</tr>
<tr>
<td>40) Estancia de Camara y Atani (Cuzco) livestock Chile</td>
<td>1762-66</td>
<td>(5)</td>
<td>17,500</td>
<td>26,704.8</td>
<td>2,436.7</td>
<td>9.1%</td>
</tr>
<tr>
<td>41) Calera de Tango (s. of Santiago) grain, livestock, fruit, etc.</td>
<td>1762-67</td>
<td>(5)</td>
<td>30,000</td>
<td>53,975</td>
<td>1,216.7</td>
<td>2.3%</td>
</tr>
<tr>
<td>42) Hacienda de Rancagua (Rancagua) grain.</td>
<td>1768-71</td>
<td>(4)</td>
<td>134,000</td>
<td></td>
<td>14,368</td>
<td>(10.7%)</td>
</tr>
</tbody>
</table>
Appendix 2 - Notes

* All haciendas listed here, except those marked with **, were Jesuit haciendas (before 1767) or ex-Jesuit haciendas under royal administration (after 1767). Rates of return have been calculated dividing the net income by the inventory value. When this has not been possible the rate of return appears in brackets and the method of calculation is indicated in the pertinent note. Rents paid by subtenants are included in the expenses but not the income.

(1) Berthe 1966: 91-3, 104. Berthe has made different calculations with the same data. We have calculated the value of the hacienda at 194,821 pesos or more, that is the 54,740 pesos paid in cash for the purchase in 1639 plus the censos acquired with the estate or later totalling 141,081 pesos. During the years considered the gross income of the hacienda was 42,484.3 pesos and the expenses 39,572.4 pesos. However since 14,120 pesos of the expenses were payment of interest or censos we consider the net income of the hacienda to be 17,032 pesos in these 2 years or an annual average of 8,516 pesos. Berthe considers the profits of the hacienda (in fact of the Jesuits) to be 1,456 pesos p.a. and its rate of return to be between 1% and 1.5% which supposes a capital value of between 72,800 and 145,600 pesos.

(2) Taylor 1972: 183-4; Taylor in Florescano (ed) 1975: 94-7; Taylor in Altman et al (ed) 1976: 86-9. It is not clear what the value assessment of the property was so we have used the sale price to estimate the rate of return. We have excluded payment of interest or censos from the expenditure.

(3) Benedict 1979: passim. See Chapter 5, Table 8, for full details.

(4) Barrett 1977: 49-51, 251-2. Sale price of the estate has been estimated capitalising the rent paid by the tenants, 3,000 pesos from 1692-1702 and 3,000 pesos from 1721-31.


(7) Ewald 1976: 134-5. The losses of 1767 (11,327 pesos) have been divided into two and the quotient added to each period.


(11) Tovar in Florescano (ed) 1975: 217, Riley 1975: 264. Tovar estimates the rate of return as 21.9% but this is probably based on the sale price and not on the value assessment (Florescano (ed) 1975: 197-8). We have used Tovar's data in this table in so far as it specifies value assessment and covers five years or more.


(15) " " " 216, 218.

(16) " " " 216n.

(17) " " " 217-18.

(18) " " " 217.


(22) Brading 1978: 104-6.

(23) " " 109-13.

(24) " " 34-37 (estimate).


(26) " " .

(27) Konrad 1980: 213-4, 352-3, 41; Riley 1975: 264. Rate of return estimated on the purchase price (17,000 pesos). To the original purchase in 1576 (5 sitios de ganado mayor over 18,000 head of livestock, 8 slaves, etc.) were added 2 sitios de ganado mayor donated to the Jesuits by Cristobal Perez who received them from the Audiencia through a (free) grant. Thus no value was added to the hacienda. The return of the first year of operation of the hacienda was 1,500 pesos or 8.8%.


(30) " " 116, 76, 138.

(31) " " 117, 76.

(32) Cushner 1980: 120-2, 114. Inventory value for the last three periods are averages for those periods. In the period 1710-21 purchases of slaves were not included in the expenses but added to the total capital of the hacienda. Inventory value in 1772 in Macera 1977, III: 23.


(34)-(40) Macera 1977, III: 164, 16-23, 27-28. The majority of the hacienda evaluations were made in 1770-2 although some
were done just after 1767 and others well after 1772.

(41) Aranguiz 1967: passim, especially 226, 254-5. The value assessment of 1783 was of only 34,201.1 pesos due to the sale of livestock and the general decay of the hacienda.

(42) Carmagnani 1973: 222-3. Value assessment based on the capitalisation of the rent paid by the tenant during the period (6,700 pesos per annum.)
Appendix 3: Gold production registered in Upper Peru (in pesos of 272 maravedíes)

<table>
<thead>
<tr>
<th>Year of Foundation</th>
<th>Potosí (1549)</th>
<th>Oruro (1607)</th>
<th>Chucuito (1658)</th>
<th>La Paz (1624)</th>
<th>Arica (1759)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1601-1650</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1651-1660</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1661-1670</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1671-1680</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1681-1690</td>
<td>16,321</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>45,438</td>
<td>62,750</td>
</tr>
<tr>
<td>1691-1700</td>
<td>6,970</td>
<td>604</td>
<td>0</td>
<td>220,759</td>
<td>228,333</td>
<td>125,377</td>
</tr>
<tr>
<td>1701-1710</td>
<td>28,354</td>
<td>6,178</td>
<td>4,336</td>
<td>106,509</td>
<td>145,377</td>
<td>74,806</td>
</tr>
<tr>
<td>1711-1720</td>
<td>6,706</td>
<td>6,284</td>
<td>13,258</td>
<td>40,558</td>
<td>49,305</td>
<td>29,076</td>
</tr>
<tr>
<td>1721-1730</td>
<td>7,969</td>
<td>6,742</td>
<td>0</td>
<td>4,365</td>
<td>4,365</td>
<td>2,958</td>
</tr>
<tr>
<td>1731-1740</td>
<td>701</td>
<td>0</td>
<td>1,144</td>
<td>1,133</td>
<td>1,133</td>
<td>0</td>
</tr>
<tr>
<td>1741-1750</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1751-1760</td>
<td>91,157</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>91,157</td>
<td>91,157</td>
</tr>
<tr>
<td>1761-1770</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9,763</td>
<td>9,773</td>
</tr>
<tr>
<td>1771-1780</td>
<td>415,239</td>
<td>0</td>
<td>0</td>
<td>507,769</td>
<td>0</td>
<td>923,008</td>
</tr>
<tr>
<td>1781-1790</td>
<td>2,079,141</td>
<td>0</td>
<td>0</td>
<td>972,408</td>
<td>67,292</td>
<td>3,117,841</td>
</tr>
<tr>
<td>1791-1800</td>
<td>2,367,867</td>
<td>0</td>
<td>3,258</td>
<td>4,353,558</td>
<td>2,125</td>
<td>6,726,808</td>
</tr>
<tr>
<td>1801-1810</td>
<td>3,139,725</td>
<td>0</td>
<td>-</td>
<td>3,027,204</td>
<td>35</td>
<td>6,166,984</td>
</tr>
<tr>
<td>1811-1820</td>
<td>74,800</td>
<td>0</td>
<td>-</td>
<td>1,106,133</td>
<td>3,471</td>
<td>1,184,404</td>
</tr>
</tbody>
</table>

Source: Klein (et al) 1982, II: 1-422 passim. The treasuries of Carangas, Santa Cruz and Charcas are not included since no gold was presented there for taxation. Also excluded is the treasury of Cochabamba which only registered gold to a value of 1735 pesos (in 1793). For the number of years missing in each decade and treasury see Appendix 5. The method of calculation of the value of silver is exactly the same as that of gold and can also be seen in Appendix 5.
### Appendix A: Gold production registered at Lima Treasuries in millions of Maravedis (1560-1620) (1563-1617) (1574-1622) (1601-1796) (1799-1820)

<table>
<thead>
<tr>
<th>Period</th>
<th>Lima (1)</th>
<th>Trujillo (2)</th>
<th>Cuzco (3)</th>
<th>Arequipa (4)</th>
<th>Others (5)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1601-1610</td>
<td>3,729</td>
<td>6,100</td>
<td>33,041</td>
<td></td>
<td>1,042</td>
<td>38,915</td>
</tr>
<tr>
<td>1611-1620</td>
<td>(3,002)</td>
<td>n.d.</td>
<td>n.d.</td>
<td></td>
<td>n.d.</td>
<td>32,092</td>
</tr>
<tr>
<td>1621-1630</td>
<td>(10,867)</td>
<td>0</td>
<td>n.d.</td>
<td></td>
<td>0</td>
<td>106,923</td>
</tr>
<tr>
<td>1631-1640</td>
<td>(12,857)</td>
<td>n.d.</td>
<td>n.d.</td>
<td></td>
<td>0</td>
<td>61,923</td>
</tr>
<tr>
<td>1641-1650</td>
<td>(7,073)</td>
<td>n.d.</td>
<td>n.d.</td>
<td></td>
<td>0</td>
<td>82,176</td>
</tr>
<tr>
<td>1651-1660</td>
<td>(2,521)</td>
<td>n.d.</td>
<td>n.d.</td>
<td></td>
<td>0</td>
<td>82,176</td>
</tr>
<tr>
<td>1661-1670</td>
<td>(2,312)</td>
<td>26,875</td>
<td>24,033</td>
<td></td>
<td>688</td>
<td>53,295</td>
</tr>
<tr>
<td>1671-1680</td>
<td>(1,525)</td>
<td>24,875</td>
<td>44,033</td>
<td></td>
<td>888</td>
<td>72,295</td>
</tr>
<tr>
<td>1681-1690</td>
<td>(6,245)</td>
<td>21,705</td>
<td>21,705</td>
<td></td>
<td>0</td>
<td>117,705</td>
</tr>
<tr>
<td>1691-1700</td>
<td>(8,924)</td>
<td>26,415</td>
<td>64,615</td>
<td></td>
<td>n.d.</td>
<td>116,070</td>
</tr>
<tr>
<td>1701-1710</td>
<td>(1,045)</td>
<td>14,245</td>
<td>14,245</td>
<td></td>
<td>n.d.</td>
<td>36,790</td>
</tr>
<tr>
<td>1711-1720</td>
<td>(203,790)</td>
<td>0</td>
<td>328,996</td>
<td></td>
<td>0</td>
<td>332,996</td>
</tr>
<tr>
<td>1721-1730</td>
<td>(1,461)</td>
<td>23,524</td>
<td>23,524</td>
<td></td>
<td>0</td>
<td>27,048</td>
</tr>
<tr>
<td>1731-1740</td>
<td>(46,180)</td>
<td>5,363</td>
<td>5,363</td>
<td></td>
<td>0</td>
<td>56,843</td>
</tr>
<tr>
<td>1741-1750</td>
<td>(87,501)</td>
<td>5,296</td>
<td>257,051</td>
<td></td>
<td>0</td>
<td>358,848</td>
</tr>
<tr>
<td>1751-1760</td>
<td>(435,076)</td>
<td>0</td>
<td>521,976</td>
<td></td>
<td>0</td>
<td>957,052</td>
</tr>
<tr>
<td>1761-1770</td>
<td>(1,618,556)</td>
<td>0</td>
<td>1,618,556</td>
<td></td>
<td>0</td>
<td>3,237,112</td>
</tr>
<tr>
<td>1771-1780</td>
<td>(1,904,556)</td>
<td>0</td>
<td>1,904,556</td>
<td></td>
<td>0</td>
<td>3,809,112</td>
</tr>
<tr>
<td>1781-1790</td>
<td>(2,142,156)</td>
<td>0</td>
<td>2,142,156</td>
<td></td>
<td>0</td>
<td>4,284,312</td>
</tr>
<tr>
<td>1791-1800</td>
<td>(2,836,696)</td>
<td>0</td>
<td>2,836,696</td>
<td></td>
<td>0</td>
<td>5,673,392</td>
</tr>
<tr>
<td>1801-1810</td>
<td>(3,723,163)</td>
<td>0</td>
<td>3,723,163</td>
<td></td>
<td>0</td>
<td>7,446,326</td>
</tr>
<tr>
<td>1811-1820</td>
<td>(4,255,333)</td>
<td>0</td>
<td>4,255,333</td>
<td></td>
<td>0</td>
<td>8,510,666</td>
</tr>
</tbody>
</table>

*Source: TePaske (et al), 1962, 1: passim. Several other treasuries have not been included since they did not receive the gold tax. The method of obtaining the total value of gold produced is the same as in the case of silver, see Appendix 5.

1) This is a fairly complete series and only 2-3 years are missing in the mid-17th century, 2 years in the 1800s and one in the 1790s. However, from 1691 to 1761 gold and silver are not differentiated and we have assumed that gold amounted to 1/3 of the total for every year of that period. This assumption is based on the fact that in 1600-10 gold amounted to 3/10 of the total production of precious metals. In 1705 to 1740 and in the period 1762-65 it amounted to approximately 1/3.

2) Fairly incomplete series up to 1720 with information missing for some 37 years, from then onwards almost complete.

3) Up to 1675 data cover only 5 years, mainly in the 1600s. From 1676 to 1800 data are almost complete with only one year missing, while in the 19th century 8 years are missing from our sources.

4) The series is fairly complete from 1720 to 1790 when the treasury ceased to operate. In this period only 4 years are missing. For the 1800s only data for 3 years are available and the same is true for the 1830s, while for the 1870s 2 years are missing.

5) The series is fairly complete from 1691 until 1790 with only 5 years missing. The decades with data in the 17th century and the 1800s include data for 4 or 5 years only.

6) Includes the following treasuries: Jaunia (1730-85) with almost complete data, 25 years missing; Puno (1803-20) with 5 years missing; Huamanga (1746-1820) with 27 years missing and Huancavelica (1577-1793). For the latter only data for 8 years are available during the 17th century, data for 10 years for the period 1790-1820 and almost complete data for the rest of the period.
# Appendix 4: Cold production registered in Lower Peru (in means of 100 libras esterlinas)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Others</th>
<th>(6)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
<th>(11)</th>
<th>(12)</th>
<th>(13)</th>
<th>(14)</th>
<th>(15)</th>
<th>(16)</th>
<th>(17)</th>
<th>(18)</th>
<th>(19)</th>
<th>(20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1601-1610</td>
<td>1602-1610</td>
<td>(1560-1620)</td>
<td>17,672</td>
<td>(1601-1617)</td>
<td>(1571-1822)</td>
<td>(1690-1796)</td>
<td>13,041</td>
<td>(36,153)</td>
<td>(6)</td>
<td>360</td>
<td>172,859</td>
<td>172,859</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
</tr>
<tr>
<td>1612-1620</td>
<td>1621-1630</td>
<td>(1621-1626)</td>
<td>11,607</td>
<td>(6)</td>
<td>172,859</td>
<td>172,859</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
</tr>
<tr>
<td>1631-1640</td>
<td>1641-1650</td>
<td>(1641-1646)</td>
<td>10,956</td>
<td>(3)</td>
<td>172,859</td>
<td>172,859</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
</tr>
<tr>
<td>1671-1680</td>
<td>1681-1690</td>
<td>(1681-1686)</td>
<td>10,956</td>
<td>(6)</td>
<td>172,859</td>
<td>172,859</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
</tr>
<tr>
<td>1711-1720</td>
<td>1721-1730</td>
<td>(1711-1726)</td>
<td>10,956</td>
<td>(6)</td>
<td>172,859</td>
<td>172,859</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
</tr>
<tr>
<td>1731-1740</td>
<td>1741-1750</td>
<td>(1731-1746)</td>
<td>10,956</td>
<td>(6)</td>
<td>172,859</td>
<td>172,859</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
</tr>
<tr>
<td>1751-1760</td>
<td>1761-1770</td>
<td>(1751-1766)</td>
<td>10,956</td>
<td>(6)</td>
<td>172,859</td>
<td>172,859</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
<td>32,024</td>
<td>129,813</td>
<td>46,502</td>
<td>115,971</td>
<td>115,971</td>
</tr>
</tbody>
</table>

Sources: 1) Pérez de Guzmán, 1962, 2: 2) Pasco and de la Puente. Further treasuries have not been included since they did not receive the gold tax. The method of obtaining the total value of gold produced is the same as that of silver, see Appendix 5. (1) There is a fairly complete series and only 2 or 3 years are missing in the 17th century, 2 years in the 1800's and one in the 1710's. However, from 1641 to 1765 gold and silver are not differentiated and we have assumed that gold amounted to 1/3 of the total for every year of that period. This assumption is based on the fact that in 1650-60 gold amounted to 5.9% of the total production of precious metals, in 1725 to 12.6% and in the period 1762-65 to approximately 16%. (2) The series is fairly complete up to 1727 with information missing for some 37 years, from then onwards almost complete. (3) The series is fairly complete up to 1675 with information missing for some 37 years, from then onwards almost complete. (4) This is a fairly complete series and only 2 or 3 years are missing in the 17th century, 2 years in the 1800's and one in the 1710's. However, from 1641 to 1765 gold and silver are not differentiated and we have assumed that silver amounted to 1/3 of the total for every year of that period. This assumption is based on the fact that in 1650-60 gold amounted to 5.9% of the total production of precious metals, in 1725 to 12.6% and in the period 1762-65 to approximately 16%. (5) Fairly complete series up to 1727 with information missing for some 37 years, from then onwards almost complete. (6) The series is fairly complete from 1742 to 1796 when the treasury ceased to operate. In this period only 5 years are missing, for the 1800's only data for three years are available and the same is true for the 1730's, while for the 1720's 2 years are missing. (7) This is a fairly complete series from 1742 until 1810 with only 5 years missing. The decade with data for the 17th century and the 1820's include data for 4 or 5 years only. (8) The following treasuries: Jesus (1735-45) with almost complete data, 1723 two years missing; Poor (1823-32) with 5 years missing; Huayna Capac (1735-45) with 3 years missing; and Puno (1735-45) with 1 year missing. The data are available during the 17th century, data for 30 years for the period 1750-60 and almost complete data for the rest of the period.
Appendix 3: Silver Production Registered in Upper Peru (in pesos of 272 maravedis) (+)

<table>
<thead>
<tr>
<th>Treasury and year of foundation</th>
<th>Potosí 1549-****</th>
<th>Oruro 1607</th>
<th>Chuquis 1670</th>
<th>Carangas 1652</th>
<th>La Paz 1624</th>
<th>Arico 1759</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1551-1560</td>
<td>24,417.093</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1561-1570</td>
<td>22,084.326</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1571-1575</td>
<td>7,474,158</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1576-1580</td>
<td>22,896,443</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1580-1590</td>
<td>90,772,947</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
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*Source: For Potosí up until 1735 and Oruro up until 1712, Hackwell 1975: 92-7. 101-3. For Potosí during the period 1736-1778, Sierra 1971: passim. and for the rest of the period Puechler 1981:131. For the rest of the treasuries and Oruro from 1713 onwards TePaske et al. 1982, 1:1: 1,222 passim. Methods of calculation are as follows. Once reduced to our value, the peso of 272 maravedis, the value of the tax has been multiplied by the factor 4.775. 5, 8, 10 or 10 according to the percentage applied as silver tax (10% - 1.5%, 20%, 10% +1.5% or 10%). The value thus obtained in that of taxed but not coined silver. To obtain the latter we have multiplied by 1.0625 which derives from the difference between the amount paid for the silver by the royal mint (8.007 per mark) and the quantities of pesos produced with the same quantity of silver (8.5) in the 18th century.

** We exclude the treasuries of Cochabamba, Charcas and Santa Cruz created in the 1770's. Of the three only in Cochabamba was some silver presented (253 pesos in 1793).

*** Arico's treasury was founded in 1587 but seems to have worked only occasionally until 1759. The treasury of La Paz might have started working before 1621. See TePaske et al. 1982, Ill: viii.

**** Chuquis' treasury stopped working in 1800 and the jurisdiction (Puno) was transferred to Lower Peru.

***** Numbers in brackets indicate the number of years missing in the accounts of each treasury for the decade in question. Their absence indicates that the accounts are complete for that decade.
Appendix 6: Silver Registered in the Treasuries of Lower Peru (1600-1820) in pesos*

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<td>135</td>
<td>54</td>
<td>1,047</td>
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</tbody>
</table>

* Sources: Tefénes et al 1982, 1; passim.

(1) See Appendix 4 note 1 for quality of the series and estimates of silver/gold production.
(2) The half century 1750-1800 is fairly complete with data missing for 5 years. For the period 1721-1800 information for only 8 years (of those in the 1750's) is missing. For the first and second decades of the 17th century, 3 and 6 years are missing respectively.
(3) Data for the 17th century is very deficient. Data for 7 years are available for the 1630's, for 1 year only in the 1640's, 1650's and 1660's and none for the rest. For the first decade of the 18th century, 5 years are missing but the rest of the series is fairly complete with only 5 years missing between 1711 and 1775.
(4) As in 17th data are available only for the 1610's (6 years) and 1620's (6 years). In the 1710's, 1720's and 1730's ten, six and three years respectively are available. Data for the rest of the 18th century are fairly complete with only 4 years missing. For the 19th century however information for only 10 years are available.
(5) See Appendix 4 for quality of the series.
(6) The series is almost complete lacking information for only 1 year in the 1620's and 3 years in the 1730's.
(7) Data up to 1630 is almost complete, only 4 years' information is missing in the 1620's. Thereafter we have no data except for one year in the 1650's.
(8) Includes Chanchamayo (1687-93) with data for only 8 years and Puno (1800-22) with data for 6 years in the 1800's and 7 years in the 1810's.
(9) Fisher 1977: Appendix. We have converted silver marks into pesos by multiplying the former by 8.5. We have eliminated from his data the treasuries of Azmar (1776-1820) and Puno (1796-1800) since we have included them in Upper Peru. The enormous difference between Fisher's data and our calculation for the two decades of the 19th century derives from the fact that in Tefénes's data about 7 years' records are missing for the treasuries during this period.
Appendix 7: Vitoria's and Las Casas' Opinions on the Right of the King of Spain to Rule the Indies

Vitoria began by establishing in his early lectures ('De Potestate Civili' and 'De Potestateecclesiae' I and II: 1528-1533) the authority of the church and the Christian princes delimiting (as Aquinas and his followers) the spiritual and the temporal spheres. The Pope has spiritual power over the whole world and also temporal power in so far as it is directed to spiritual ends. He has therefore no authority to judge on the titles of the princes or on their kingdoms.

However, in the late 1530's, in his lectures 'De temperantis', 'De Indis' and 'De Jure belli', an explicit rejection of the legitimacy of the papal concession was formulated. 'De Indis' is the one which holds more interest for us since it clearly summarises his doctrine about the titles of Spain over the Indies. In it he analysed 15 possible titles, seven of which he rejected as false (these included the papal donation, the universal dominion of the emperor, the title of discovery, the resistance of the Indians to acceptance of the Christian faith and the sins against nature). He accepted seven as legitimate while the eighth was considered only probable (Carro 1951:336-51, 399-400). These legitimate titles were:

1. Society and Communication: that is the right of Spaniards to stay in, populate, trade in, etc., those new territories without damaging the natives. However, if they were prevented from doing so by the natives, the Spaniards could make war on them, take them prisoner and despoil them.

2. Propagation of the Catholic Faith: that is the right of Spaniards to preach the gospel freely. Any obstruction, either from the Indian chieftains or from the people would justify the 'acceptance or declaration of war against them until they give them the opportunity and security to preach the gospel'. The Pope could command this task to the Spaniards and forbid it to the rest of the Christian nations.

3. Injury: the right of Spaniards to protect the beliefs of the Indians already converted to Christianity. If the Indian rulers coerce these Christians to revert into idolatry, the Spaniards have the right to wage war against them and eventually depose their rulers.

4. Christian Majority: if a reasonable part of the barbarians had accepted the Christian faith, the Pope could, if he had sound reasons, give them a Christian prince (with their acceptance or not).

5. Tyranny: If the Indians use inhuman laws which damage innocent people (such as sacrifices), Spaniards can prohibit all nefarious customs and rites even without the authority of the Pope.

7. Friendship and Alliance

8. The Right of Tutelage which Vitoria hesitates to approve:
'I neither dare to approve it as good nor to condemn it in an absolute way...The title is this: these barbarians, although not altogether without reason...seem not to be fit to establish and administer a legitimate republic within civil and human bonds...because of these, it could be said that the Spanish kings should take the administration of these barbarians into their own hands, for as long as it is convenient for them...If they were all irrational it would not only be licit but also very convenient and a duty for the (Christian) princes (to take the administration of these barbarians into their own hands)'. (Text and quotes in Merle et al 1972: 77-81, see also Carro 1951: 442-459, 509-515).

It should be noticed that the value of each title is relative, the two former only allow the presence of the Spaniards in the Indies and not the overthrow of the aboriginal rulers. Titles 6 and 7 imply a voluntary acceptance of Spanish rule, while title 5 allows only the suppression of barbaric customs and right. Titles 3 and 4 aim at the protection of the faith and presuppose its previous acceptance, in these cases the overthrow of the Indian rulers was legitimate, while the eighth title permitted Spanish dominion over the Indians without prior conversion if they were proved to be irrational. In this ideology, then, the imperial interest of Spain was secured against foreign intrusion (title 2). However, its dominion over the Indian peoples was certainly legitimate only after a prior conversion of the Indians (titles 3 and 4) thus protecting the interests of the church in the American enterprise.

Las Casas' eighth remedy is the suppression of the encomienda '...that his Majesty command and order that all the Indians of the Indies who have already been conquered or who will be conquered be incorporated into the royal crown of Castile and Leon, under his Majesty, as free subjects, and none should be commended (encomendado) to Spanish Christians...and that (those Indians)...will never be alienated from this royal crown, nor be given to anyone as vassals or commended...'

This remedy is justified by 20 reasons, the most important of which are summarised below:

1. The Indians were commended to the kings of Castile by the Pope only in order to convert them. Such an important duty should not be jeopardised by delegating it to others. Furthermore, the encomienda is incompatible with the conversion of the Indians: the encomendero obstructs evangelisation, and the partition of Indians into encomiendas breaks the traditional solidarity of their communities.

2. The Christians (Spaniards) are responsible for the death of 3 million souls in Hispaniola island, and another 3 million in other (Antillian) islands and mainland America, Indians who have died without faith or sacraments.
4. The burden of the encomienda, 'so heavy, bitter and difficult to bear' is imputed by the Indians to the Christian God, accordingly they reject the Christian faith, preferring their own (ancestral) religion.

5. The Pope intended to do the Indians good, not harm, through his concessions to the kings of Castile.

6. The Spaniards (encomenderos) constantly calumniate the Indians (as sodomites, cannibals and idolators), because of this and because they are enemies of the Indians and 'destroyers of all its generation' they are incapable of being their tutors.

8. There are too many tributes, services and obligations burdening the Indians: firstly to their own lords Indian chieftains, secondly to the Spanish king, both of these are legitimate, thirdly to the Spanish encomenderos, this is violent, tyrannical and against reason and nature, and finally to the encomenderos' lieutenants and even servants, all of whom are engaged in exploiting, robbing and oppressing them.

9. The Indians are free, and do not lose this liberty by becoming vassals of the king. Any forced acceptance of restrictions to this liberty (serfdom) is violent, unjust and perverse and according to Natural Law, valueless.

11. The encomienda has always lacked the authority of the kings, it also lacks the consent of the Indians, therefore it has no (legal) value.

14. If his Majesty gave the Indians to the Spaniards as vassals, the Spaniards would increase their power and would be less obedient to the king.

17. If the Indians are taken away from the encomenderos and incorporated under the direct control of the crown, they will serve his Majesty willingly and with love. In that way the (Spanish) king's rule will be perpetuated, since coercion makes kingdoms temporary.

18. The Indians, knowing that they are safe under the Spanish crown, and that no one will damage them or their property, will come out from their hideouts to live in 'policia' (a civilised way) and could then be evangelised.

20. The suppression of encomiendas will free the Spaniards from the grave sins of tyranny, robbery and homicide which they commit daily. The encomenderos argue that if the crown withdraws their Indians, they would not be able to live in the Indies, thus the dominions of his Majesty would be at risk. It is preferable that his Majesty does not rule over the Indians and that they are never evangelised than suffer death and total destruction.

Final Protestation: The damage provoked by the Spanish crown by tolerating the destruction of the Indies will be punished by God with horrible punishments and perhaps it will totally destroy Spain. (From the exerpts quoted in Bataillon et al 1976:198-220).
It will be noticed that, in this treatise Las Casas used all the resources available to him: legal argumentation (reasons 1, 5, 9), politico-administrative reasoning (reasons 14 and 19, viz the reaffirmation of the power of the king under the threat of would-be feudal lords), practical advice to propagate the faith (reasons 1, 4, 18), moral condemnation, etc.
Notes to Chapter 1


Notes to Chapter 2


(3) Katz 1972: 76-82, 119-133 passim.


(8) Lopez 1974: 527-34.


(38) Vicens 1969: 244-7.


Notes to Chapter 3


(2) Zavala 1968: 77; Sauer 1966: 159; Fernandez 1966: 14-5.


(23) Fiehrer 1979: 45; MacLeod 1973: 149-50; Goveia 1959: 282-3; Patterson in Rubin et al (eds) 1977: 32; see also chapter 10 below.
(41) Rout 1977: 185-312 passim; Mintz 1959: passim.
(45) Zavala 1935: 40-87; Gibson 1964: 59ff, 81ff.
(47) Zavala 1935: 115-8, 270-93; Gongora 1951: 123.


Notes to Chapter 4


(7) Chevalier 1963: 85, 92-6, 102-7; Serrera 1977: 75-6, 87-91, 299.


(23) Osborn 1973: passim.


(23) Osborn 1973: passim.


(30) Van Young 1981: 12-18, 36-9; Borah and Cook 1960: 34, 48; Gerhard 1972: 22.
(42) Spalding 1975: passim.
(43) Sanchez-Albornoz 1977: 51-60.

(49) Carmagnani 1973: 59, 83, 102 and Appendix 32; Izard 1979: 77, 93.


(58) Borde et al 1956: 43, 47-8, Map 1; Carmagnani 1973: 387-90; Gongora 1974: 120.


Notes to Chapter 5


(11) Hamnett 1971a: 68, 73.


(33) Florescano 1969 passim, especially 172-95; Gibson 1964: 251-2.


(36) Larson 1979, passim.
(43) Carmagnani 1973: 203, see also Appendix 1; Tandater et al 1983, loc cit and Appendix 5.
(46) See Chapter 3; Florescano (ed) 1975: 49-70 passim.
(47) See Chapter 9.
(48) Brading 1978: 91-2; Taylor 1972: 140-2. See also Chapter 9.
(53) Bazant 1975: 16-7; Riley 1972: 246-7; Benedict 1979: 408.
(56) Benedict 1979: 408-9 and passim.


Notes to Chapter 6


(4) Brading et al 1972: 561; Colmenares 1979: 166.

(5) Hamilton 1975: 56; Chaunu 1959, VIII, 1: 510-13, 547-9, 555-7, 900-2, etc.


(18) See Table 7 and Appendices 5 and 6, also Bargallo 1955: 63-4; 72-6, 204-20, 292-300 passim; Roel 1970: 91, 129-30.


(22) Bakewell 1971: 129, 192, 199-200, 126 ff; Bargallo 1955: 74.

(24) Brading 1971: 146-7; Florescano et al 1980: 275-82;
Bakewell 1971: 121-4; Hadley 1979: 184-90; West 1949:
47-56.


(26) Brading et al 1972: 559-60; Roel 1970: 125-6; Sanchez-
Albornoz 1978: 150-2; Fisher 1977: 181-91; Villalobos

(27) Villalobos 1979: 205; Hadley 1979: 191; Florescano et al
1980: 266-7, etc.


(30) Fisher 1977: 193; Villalobos 1979: 205; Tandater 1981b:
pessim; Newson 1982: 200; Carmagnani 1963: 57 ff;

(31) Bakewell 1971: 125-6; West 1949: 51; Hadley 1979: 192-
201; Fisher 1977: 193, 207; Villalobos 1979: 206-8;
Tandater 1981a: 533, 544-5; Carmagnani 1963: 57 ff; Car-

(32) Brading 1971: 146-7; Carmagnani 1963: 80-3; Tandater

(33) Bargallo 1955: 87-90, 236-9, 338-43; Bakewell 1971: 131-5;

(34) Fisher 1977: 224-5, 243; Brading 1971: 184; Brading


(38) Bakewell 1975: 87-9; Bakewell 1977: 57-67; Bakewell
1971: 188.


(42) Humboldt 1966: 386.


(45) Brading 1971: 196; Fisher 1977: 205; Bakewell 1973:
17-28 passim.


(50) Bakewell 1973: passim; Bakewell 1971: 210-20, especially 220.


(60) E. Barret 1981b: passim; see also E. Barret 1981a: passim; Le Riverend 1972: 88-9; Carmagnani 1973: 77-93 passim.


(66) Roel 1970: 105-6, 115.


Notes to Chapter 7

(9) Hanke 1949: 17-23.
(20) Hanke 1949: 11.
(22) Hanke 1937: 67-70.
(33) Hanke 1959: 34-37.
(34) Hanke 1959: 30-32.
(35) Hanke 1959: 76-78.
(36) Hanke 1959: 44-47.
(39) Hanke 1959: 70-1.
(41) Carro 1951: 459-60.

Notes to Chapter 8

(9) Ricard 1966: 135-149.
(31) Loughran 1930: 172-184, passim.
(35) Schaefer 1935-47, II: 212-25
(38) Zubillaga 1965: 613-30, 700-719, 739-68, passim; Bolton 1917: 45-6, 53.
(43) Bolton 1917: 61.
(47) Zubillaga 1965: 763.
(49) Sanchez-Albornoz 1977: 79-80; Garavaglia in Assadourian et al 1978: 186.
Notes to Chapter 9

(8) Lavrin 1975: 106.
(9) Lavrin 1973: 107, 118.
(23) Moerner 1953: 100-1, 130-2, 165-70.


(36) Loughran 1930: 171, 177; Borah 1941: 387.


(38) Borah 1941: 398-404; Borah 1949: 510.


(40) Loughran 1930: 181-5; Borah 1941: 390.

(41) Borah 1941: 393; Borah 1949: 504-9; Farris 1968: 152-5.


Notes to Chapter 10


(7) Saenz 1963: 42.


Notes to Chapter 11


(8) Florescano 1968: 72-5.


(13) Gibson 1964: 111-2; Solano 1974: 442.


(15) Greenleaf 1978: passim.


Notes to Conclusions

(1) Frank 1971; Frank 1972: Chapter 1; Cockcroft 1972: Chapters 1 and 2.

(2) Bagu 1949.

(3) Assadourian and Laclau in Assadourian et al 1978, the latter translated into English as Laclau 1971.


(14) Quoted in Bagu 1952: 164.


(14) Quoted in Bagu 1952: 164.

Bibliography

Key to abbreviations

AEA Anuario de Estudios Americanos
AESC Annales: Economies, Societies, Civilisations
CSSH Comparative Studies in Society and History
HAHR The Hispanic American Historical Review
HM Historia Mexicana
JGSWGL Jahrbuch fur Geschichte von Staat, Wirtschaft und Gesellschaft Lateinamerikas
JLAS Journal of Latin American Studies
NA Nova Americana (Torino)
RHA Revista de Historia de America
RI Revista de Indias
TA The Americas

Aguirre, E.G. 1970 "The Integration of the Negro into the National Society of Mexico" in Race and Class in Latin America, M. Moerner (ed), New York.

Albi, G. 1970 "La sociedad de Puebla de los Angeles en el siglo XVI" in JGSWGL, vol 7: 76-145.


<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armas, F. de</td>
<td>1953</td>
<td>Cristianización del Perú, 1532-1600, Sevilla.</td>
</tr>
<tr>
<td></td>
<td>1966</td>
<td>&quot;Las propiedades de las ordenes religiosas y el problema de los diezmos en el virreinato peruano en la primera mitad del siglo XVII&quot; in AEA, vol 23: 681-721.</td>
</tr>
<tr>
<td>Arze, R.B.</td>
<td>1979</td>
<td>Participación popular en la Independencia de Bolivia, La Paz.</td>
</tr>
<tr>
<td>Bagu, S.</td>
<td>1949</td>
<td>Economía de la sociedad colonial, Buenos Aires.</td>
</tr>
<tr>
<td></td>
<td>1952</td>
<td>Estructura social de la colonia, Buenos Aires.</td>
</tr>
<tr>
<td></td>
<td>1973</td>
<td>Antonio Lopez de Quiroga (industrial minero del Potosi colonial), Potosi.</td>
</tr>
</tbody>
</table>


Bargalho, M. 1955 La mineria y la metalurgia en la America espanola durante la epoca colonial. Mexico.

Barnardas, J.M. 1973 Chacras: Origenes historicos de una sociedad colonial, 1535-1565. La Paz.


1974 "Indian Community lands in the Tierra Caliente of Michoacan" in JGSWGL, vol 1I: 78-120.


Barret, W. 1977 La hacienda azucarera de los marqueses del Valle, Mexico.


1975 Chilean Rural Society from the Spanish Conquest to 1930. Cambridge.

Bargallo, M. 1955  La minería y la metalurgia en la América espanola durante la época colonial, Mexico.
Barnardas, J.M. 1973  Charcas: Orígenes historicos de una sociedad colonial, 1535-1565, La Paz.
1974  "Indian Community lands in the Tierra Caliente of Michoacan" in JGSWGL, vol 11: 78-120.
Barret, W. 1977  La hacienda azucarera de los marqueses del Valle, Mexico.
1975  Chilean Rural Society from the Spanish Conquest to 1930, Cambridge.


Borde, J. and Gongora, M. 1956 Evolucion de la propiedad rural en el Valle del Fuangue, 2 vols, Santiago de Chile.
<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1977</td>
<td>El esclavo Africano en el Peru colonial, Mexico.</td>
</tr>
<tr>
<td></td>
<td>1973</td>
<td>The Portuguese Seaborne Empire, Middlesex.</td>
</tr>
<tr>
<td></td>
<td>1971</td>
<td>Miners and Merchants in Bourbon Mexico, 1763-1810, Cambridge.</td>
</tr>
</tbody>
</table>


Brito, F. 1963  La Estructura economica de Venezuela colonial, Caracas.


Canedo, R.P. 1968  "Differentes attitudes face a l'Indien" in Dixième Stage International d'Etudes Humanistes, Tours 1966: La Descouverte de l'Amerique, pp 195-228.


1976 Formacion y crisis de un sistema feudal. America Latina del siglo XVI a nuestros dias, Mexico.


Caro, J. 1978 Las formas complejas de la vida religiosa, religion, sociedad, y caracter en la Espana de los siglos XVI y XVII, Madrid.

Carro, V. 1951 La teologia y los teologos juristas espanoles ante la conquista de America, Madrid, 2nd edition.


Castro, M. 1973 La rebelion de Juan Santos, Lima.


<table>
<thead>
<tr>
<th>Name</th>
<th>Year</th>
<th>Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohn, N.</td>
<td>1975</td>
<td>Europe's inner demons, St. Albans.</td>
</tr>
<tr>
<td>Coll, J.O. de</td>
<td>1976</td>
<td>La resistencia indígena ante la conquista, Mexico.</td>
</tr>
<tr>
<td></td>
<td>1979</td>
<td>Historia economica y social de Colombia, tomo II. Popayan: una sociedad esclavista, Bogota.</td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Title</td>
</tr>
<tr>
<td>------------------------</td>
<td>------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>1980</td>
<td>Lords of the Land: Sugar, Wine and Jesuit Estates of Coastal Peru, 1600-1767, Albany, N.Y.</td>
</tr>
<tr>
<td></td>
<td>1982</td>
<td>Farm and Factory: The Jesuits and Development of Agrarian Capitalism in Colonial Quito, 1600-1767, Albany, N.Y.</td>
</tr>
<tr>
<td>Davis, D.B.</td>
<td>1966</td>
<td>The Problem of Slavery in Western Culture, Ithaca, N.Y.</td>
</tr>
<tr>
<td>Dominguez, A.</td>
<td>1976</td>
<td>Sociedad y Estado en el siglo XVIII espanol, Barcelona.</td>
</tr>
</tbody>
</table>
Duviols, P. 1971 La lutte contre les religions autochtones dans le Peru colonial. L'extirpation de l'idolatrie entre 1532 et 1660. Lima.


Fals, O. 1969 Subversion and Social Change in Colombia, New York.

Farris, N. 1968 Crown and Clergy in Colonial Mexico (1759-1821), London.


Florescano, E. 1977 Minas y mineros en el Peru colonial, 1776-1824. Lima.


Friede, J. 1952 "Las Casas y el movimiento indigenista en Espana y America en la primera mitad del siglo XVI" in RHA, No. 34: 539-411.


Garcia Fuentes, L. 1980 El Comercio Español con America (1560-1700), Sevilla.


Gibson, C. 1952 Tlaxcala in the Sixteenth Century, Yale.


Glauser, K. 1972 "Origenes del regimen de producción vigente en Chile" in Cuadernos de la realidad nacional, No. 8: 78-152.


Gongora, M. 1951 El estado en el derecho indiano: epoca de fundacion 1492-1570, Santiago de Chile.
Gongora, M. (cont) 1962 Los grupos de conquistadores en Tierra firme, 1509-1530: fisiconomía historico-social de un tipo de conquista, Santiago de Chile.


1967 "Incumplimiento de una ley en 1639: Su fundamentacion en la carga de los censos de la ciudad de Santiago y en la nocio de 'Frontera de guerra'" in Boletin de la Academia Chilena de la Historia, vol. 76: 61-96.

1970 Encomenderos y estancieros, Santiago de Chile.

1974 Origen de los inquilinos de Chile central, Santiago de Chile.


Gonzalez, L. 1952 Rebeliones indigenas y precursores de la independencia mexicana en los siglos XVI, XVII y XVIII, Mexico, 2nd edition.


1971 Historia urbana del Reino de Chile, Santiago de Chile.


Guerra, R. 1964
Hadley, P.L. 1979 Minería y sociedad en el centro minero de Santa Eulalia, Chihuahua (1709-1750), Mexico.


1978 Revolución y contrarevolución en México y el Perú, Mexico.

Hanke, L. 1935 The First Social Experiments in America, Cambridge.


1949 The Spanish Struggle for Justice in the Conquest of America, Philadelphia.

1956 The Imperial City of Potosí. An Unwritten Chapter in the History of Spanish America, The Hague.


1947 The Spanish Empire in America, New York.

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humboldt, A. de</td>
<td>1966</td>
<td><em>Ensayo Politico sobre el Reino de Nueva Espana</em>, Mexico.</td>
</tr>
<tr>
<td>Izard, M.</td>
<td>1979</td>
<td><em>El Miedo a la revolucion. La lucha por la libertad en Venezuela, (1777-1830)</em>, Madrid.</td>
</tr>
</tbody>
</table>


1966 "Estructuras de colonización y modalidades del trafico en el Pacifico sur Hispanoamericano" in Tres ensayos sobre la economia minera hispanoamericana, Santiago de Chile.


Jaramillo, J. 1963 Guerra y sociedad en Chile: La transformacion de la guerra de Arauco y la esclavitud de los indios, Santiago de Chile.

Jimenez, J. 1946 Hereijas y supersticiones en la Nueva España. Los heterodoxos en México, Mexico.


<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
<th>Publication</th>
</tr>
</thead>
</table>
Knight, F.W. 1970 Slave Society in Cuba During the Nineteenth Century, Madison.  
Konetzke, R. 1949 "La esclavitud de los indios como elemento en la estructura social de Hispanoamérica" in Estudios de Historia Social de España, vol. 1: 441-77.  
Kossok, M. 1976 America Latina. La época colonial, Madrid.  
<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lafaye, J.</td>
<td>1974</td>
<td>Quetzalcoatl et Guadalupe. La formation de la conscience nationale au Mexique (1531-1813), Paris.</td>
</tr>
<tr>
<td>Lang, M.F.</td>
<td>1977</td>
<td>El monopolio estatal del mercurio en el Mexico colonial (1550-1710), Mexico.</td>
</tr>
<tr>
<td></td>
<td>1973</td>
<td>&quot;La riqueza de los conventos de monjas en Nueva Espana: Estructura y evolucion durante el siglo XVIII&quot; in Cahiers des Ameriques Latines, No. 8: 92-122.</td>
</tr>
<tr>
<td>----------</td>
<td>------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Lopetegui, L.</td>
<td>1972</td>
<td>The Men of Cajamarca, A Social and Biographical Study of the first conquerors of Peru, Austin.</td>
</tr>
<tr>
<td>Lourie, E.</td>
<td>1967</td>
<td>&quot;A Society Organised for War: Medieval Spain&quot; in Past and Present, No. 35: 54-76.</td>
</tr>
</tbody>
</table>


MacLeod, M. 1973 Trabajos de historia. Lima. 4 vols.


1969 "Frontera agraria; el caso del virreinato peruano en el siglo XVI" in Jara, A. (ed) Tierras nuevas: Expansion territorial y ocupacion del suelo en America (siglos XVI-XIX), Mexico.

1975a "Las primeras crisis coloniales, formas de asentamiento y el origen de la sociedad chilena: Siglos XVI y XVII" in Siete Estudios: Homenaje de la Facultad de Ciencias Humanas a Eugenio Pereira Salas, Santiago de Chile.

1975b Negro Slavery in Latin America, Berkeley.

Mendez, L.M. 1979 Instituciones y problemas de la mineria en Chile 1787-1826, Santiago de Chile.


Moerner, M. 1953 The Political and Economic Activities of the Jesuits in the La Plata Region, Stockholm.


1970 La corona española y los foraneos en los pueblos de indios de America, Stockholm.


1978 Perfil de la sociedad rural del Cuzco a fines de la colonia, Lima.

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morales, F.</td>
<td>1979</td>
<td>Teoría y Leyes de la Conquista, Madrid.</td>
</tr>
<tr>
<td>Moreyra, M.</td>
<td>1980</td>
<td>La moneda colonial en el Perú, capítulos de su historia, Lima.</td>
</tr>
<tr>
<td>Morin, C.</td>
<td>1979</td>
<td>Michoacan en la Nueva España del siglo XVIII. Crecimiento y desigualdad en una economía colonial, Mexico.</td>
</tr>
<tr>
<td>Murra, J.V.</td>
<td>1975</td>
<td>Formaciones economicas y politicas del mundo andino, Lima.</td>
</tr>
<tr>
<td></td>
<td>1978a</td>
<td>La organización economica del estado inca, Mexico.</td>
</tr>
<tr>
<td></td>
<td>1978b</td>
<td>&quot;Los limites y las limitaciones del 'archipiélago vertical' en los Andes&quot; in Avances, No. 1: 75-80.</td>
</tr>
</tbody>
</table>
Nickel, H.J. 1979a "Reclutamiento y peonaje de los gananes indígenas de la época colonial en el Altiplano de Puebla-Tlaxcala" in Ibero-Amerikanische Archiv, vol. 5: 71-104.


Ortiz, F. 1973 Contrapunteo cubano del tabaco y el azucar, Barcelona.


Palacio, V. 1945 "La incorporacion a la Corona del Banco de Rescates de Potosi" in AEA, vol. 2: 723-37.


Pastor, R. et al 1979 Fluctuaciones economicas en Oaxaca durante al siglo XVIII, Mexico.

Pease, F. 1972 Los últimos incas del Cuzco, Lima.

1979 "La formación del Tawantinsuyo: mecanismos de colonización y relación con las unidades étnicas" in Historica, vol. 3: 97-120.


Perez-Maillana, P.E. 1978 Comercio y autonomía en la Intendencia de Yucatán (1797-1814), Sevilla.


Pike, R. 1966 Enterprise and Adventure. The Genoese in Seville and the Opening of the New World, Ithaca, N.Y.


Price, B.J.  1952  Soldiers, Indians and Silver, Berkeley.


Quiros, J.M.  1979  Maroon Societies: Rebel Slave Communities in the Americas, Baltimore.


Ramos, D.  1967  Trigo chileno, naveros del Callao y hacendados limenos, Madrid.


1978  "El negocio negrero de los Weiser y sus habilidades monopolistas" in RHA, No. 81: 7-81.


Price, B.J. 1952 Soldiers, Indians and Silver, Berkeley.


Quiros, J.M. 1973 "Memoria de Estatuto. Idea de la riqueza que daban a la masa circulante de Nueva España sus naturales producciones en los años de tranquilidad, y su abatimiento en las presentes condiciones (1817)" in Florescano, E. and Gil, I. (eds) Descripciones económicas generales de Nueva España, 1784-1817: 231-64, Mexico.


Ramos, D. 1967 Trigo chileno, navieros del Callao y hacendados limeños, Madrid.

1970 Minería y comercio interprovincial en Hispanoamerica (siglos XVI, XVII y XVIII), Valladolid.

1978 "El negocio negrero de los Welser y sus habilidades monopolistas" in RHA, No. 81: 7-81.

Ricard, R. 1966 The Spiritual Conquest of Mexico, Berkeley.


Rivera, S. 1978 "El mallku y la sociedad colonial en el siglo XVII; El caso de Jesus de Machaca" in Avances, No. 1: 7-19.


Rodriguez, S. 1977 Encomienda y conquista, los inicios de la colonizacion en Guatemala, Sevilla.

Roel, V. 1970 Historia economica y social de la colonia, Lima.


Romero, E. 1949 Historia economica del Peru, Lima.


Ruiz, J.B. 1972 "La plata de Mariquita en el siglo XVII. Mita y produccion" in AEA, vol. 29: 121-69.


1978 Indigenouss and tributes in the Alto Peru, Lima.


Sauer, C.O. 1966 The Early Spanish Main, Berkeley.
Scelle, G. 1906

Schaedel, R.P. 1981
"Late Incaic and Early Spanish Changes in Land Use - their effect on Dry Land: The Peruvian Coast" in Ibero-Amerikanische Archiv, vol. 7: 309-17.

Schaefer, E. 1935-47
El Consejo real y supremo de las Indias, vols. 1 and 2, Sevilla.

Schtajerman, E.M. 1976
"La caida del regimen esclavista" in M. Bloch et al, La transicion del esclavismo al feudalismo, pp 59-107, Madrid.

Scott, J.C. 1977

Sejourne, L. 1976

Semo, E. 1975
Historia del capitalismo en Mexico. Los origenes, 1521-1763, Mexico.

1978
Historia mexicana. Economia y lucha de clases, Mexico.

Sereni, E. 1971
"De Marx a Lenine: La categorie de 'formation economique et sociale'" in La Pensee No. 159: 3-49.

1980
Capitalismo y mercado nacional, Barcelona.

Serrera, R.M. 1977
Guadalajara ganadera. Estudio regional novohispano, 1760-1805, Sevilla.

Service, E. 1951

1955

Sharp, W.F. 1975

Sherman, W.L. 1971
<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simmons, C.E.P.</td>
<td>1966</td>
<td>&quot;Palafox and his Critics: Reappraising a Controversy&quot; in HAHR.</td>
<td>vol. 46: 394-408.</td>
</tr>
<tr>
<td></td>
<td>1938</td>
<td>The Repartimiento System of Native Labor in New Spain and Guatemala,</td>
<td>Berkeley.</td>
</tr>
<tr>
<td>Smith, R.S.</td>
<td>1959</td>
<td>&quot;Indigo Production and the Trade in Colonial Guatemala&quot; in HAHR.</td>
<td>vol. 39: 181-211.</td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Title</td>
<td></td>
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<td>------------------------</td>
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<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Taylor, W.B.</td>
<td>1972</td>
<td>Landlord and Peasant in Colonial Oaxaca, Stanford.</td>
<td></td>
</tr>
<tr>
<td>TePaske, J.J. and Klein, H.S.</td>
<td>1982</td>
<td>The Royal Treasures of the Spanish Empire in America, vols. 1 and 2, Durham, N.C.</td>
<td></td>
</tr>
<tr>
<td>Thomas, H.S.</td>
<td>1971</td>
<td>Cuba: or, the Pursuit of Freedom, London.</td>
<td></td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Title and Details</td>
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<td></td>
</tr>
<tr>
<td>Vargas, R.</td>
<td>1956</td>
<td>Historia del culto de Maria en Iberocamerica y de sus imagenes y santuarios mas celebrados. vols. 1 and 2, Madrid, 3rd edition.</td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Title</td>
<td></td>
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<td>------------------------</td>
<td>------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Vicens, J.</td>
<td>1969</td>
<td>An Economic History of Spain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Princeton, N.J.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1974</td>
<td>Coyuntura economica y reformismo burgues. Barcelona.</td>
<td></td>
</tr>
<tr>
<td>Villalobos, S.</td>
<td>1979</td>
<td>La Economia de un Desierto, Tarapaca durante la Colonia, Santiago de Chile.</td>
<td></td>
</tr>
<tr>
<td>Villalobos, S. Silva,</td>
<td>1979</td>
<td>Historia de Chile, vols. II and III, Santiago de Chile.</td>
<td></td>
</tr>
<tr>
<td>O., Silva, F. and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estelle, M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Villamarin, J.A. and</td>
<td>1975</td>
<td>Indian Labor in Mainland Colonial Spanish America, Newark, Delaware.</td>
<td></td>
</tr>
<tr>
<td>J.E.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voss, S.F.</td>
<td>1969</td>
<td>Interpretacion marxista de la historia de Chile, vol 2, Santiago de Chile.</td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Title</td>
<td>Publisher</td>
</tr>
<tr>
<td>-----------------</td>
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<td>----------------------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>West, R.C.</td>
<td>1949</td>
<td>The Mining Community in Northern New Spain. The Parral Mining District</td>
<td>Berkeley</td>
</tr>
<tr>
<td>Whitaker, A.P.</td>
<td>1952</td>
<td>Colonial Placer Mining in Colombia</td>
<td>Baton Rouge</td>
</tr>
<tr>
<td>Zubillaga, F.</td>
<td>1935</td>
<td>La encomienda indiana</td>
<td>Madrid</td>
</tr>
<tr>
<td></td>
<td>1948</td>
<td>Estudios indios</td>
<td>Mexico</td>
</tr>
<tr>
<td></td>
<td>1968</td>
<td>Los esclavos indios en Nueva Espana</td>
<td>Mexico</td>
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</tbody>
</table>