THE LURÍN VALLEY, PERU, A.D. 1000-1532

A thesis presented
for the degree
of
Doctor of Philosophy

May, 1983

Patricia Jane Feltham
Institute of Archaeology
University of London
ABSTRACT

This thesis discusses the post-Middle Horizon archaeology of one of the smaller central coast valleys of Peru. It focuses on a zone between 400 and 1000 metres above sea level and analyses data collected over several field seasons. There are two appendices dealing with ceramic analysis and excavations.

An introduction defines the problems raised by previous work and discusses field procedures. There is a full treatment of the environment in order to show the potential self-sufficiency of the zone and its importance as a coca-growing area. Over 100 sites are described and dated to one or more periods, from the Early Horizon to the Colonial Period, on the basis of the pottery found in surface collections and excavations. Reasons are given for the shift in settlement location between early and late periods. There follows a treatment of the late architecture, which is divided into three types: domestic, ritual and community. It is shown that the population lived scattered along the hill slopes or behind the ritual structures located on the alluvial fans of lateral quebradas. The purpose of these ritual structures was to house rites connected with the well-being of ancestor-worshipping groups and as a repository for their dead. Ethnohistorical sources yield further information on the economic, political and social organisation of the valley inhabitants. They confirm relationships between coastal Yungas and highland Yauyos, that the ceramic analysis suggested. During the Late Horizon the Incas established themselves in the upper part of the study area in order to control communications and to enjoy access to coca. The most important changes they made were to build a major road linking the coastal and highland centres of Pachacamac and Jauja and to establish a tambo,
whose location is identified in this study. Villages close to the tambo underwent particular Inca influence because they provided the bulk of labour for building and servicing it.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Table/Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Tables.</td>
<td>6</td>
</tr>
<tr>
<td>List of Figures.</td>
<td>8</td>
</tr>
<tr>
<td>List of Maps, Plans and Charts.</td>
<td>10</td>
</tr>
<tr>
<td>PREFACE</td>
<td>13</td>
</tr>
<tr>
<td><strong>CHAPTERS</strong></td>
<td></td>
</tr>
<tr>
<td>I. Introduction.</td>
<td>16</td>
</tr>
<tr>
<td>II. The Setting.</td>
<td>39</td>
</tr>
<tr>
<td>III. The Dating of the North Bank Sites.</td>
<td>70</td>
</tr>
<tr>
<td>IV. The Dating of the South Bank Sites.</td>
<td>148</td>
</tr>
<tr>
<td>V. The Architecture of the Late Periods.</td>
<td>234</td>
</tr>
<tr>
<td>VI. Settlement and Ethnohistory.</td>
<td>350</td>
</tr>
<tr>
<td>VII. Conclusions.</td>
<td>380</td>
</tr>
<tr>
<td><strong>APPENDICES</strong></td>
<td></td>
</tr>
<tr>
<td>I. The Ceramic Description</td>
<td>393</td>
</tr>
<tr>
<td>Brown Ware</td>
<td>421</td>
</tr>
<tr>
<td>Dark Brown Ware</td>
<td>462</td>
</tr>
<tr>
<td>Orange Ware</td>
<td>474</td>
</tr>
<tr>
<td>The Cuzco Style</td>
<td>603</td>
</tr>
<tr>
<td>Black Ware</td>
<td>669</td>
</tr>
<tr>
<td>Glazed Ware</td>
<td>698</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS (cont.)

APPENDICES (cont.)

II. The Excavations

<table>
<thead>
<tr>
<th>Location</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Rimac Valley</td>
<td>704</td>
</tr>
<tr>
<td>Pachacamac</td>
<td>710</td>
</tr>
<tr>
<td>The Lurín Valley</td>
<td>744</td>
</tr>
<tr>
<td>Panquilma</td>
<td>744</td>
</tr>
<tr>
<td>Avillay</td>
<td>760</td>
</tr>
<tr>
<td>General Conclusions</td>
<td>817</td>
</tr>
</tbody>
</table>

ILLUSTRATIONS AND CAPTIONS

<table>
<thead>
<tr>
<th>Category</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILLUSTRATIONS AND CAPTIONS</td>
<td>825</td>
</tr>
</tbody>
</table>

NOTES ON THE MAPS AND CHARTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOTES ON THE MAPS AND CHARTS</td>
<td>1078</td>
</tr>
</tbody>
</table>

BIBLIOGRAPHY

<table>
<thead>
<tr>
<th>Entry</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIBLIOGRAPHY</td>
<td>1080</td>
</tr>
<tr>
<td></td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>A List of Sites in the Study Area: their Name, Date, Area and Page Reference.</td>
</tr>
<tr>
<td>2.</td>
<td>The Volume of Water discharged by Central Coast Rivers.</td>
</tr>
<tr>
<td>3.</td>
<td>The Total Run-off of the Lurín by Month in Cubic Metres.</td>
</tr>
<tr>
<td>4.</td>
<td>Temperatures at Selected Central Coast Stations.</td>
</tr>
<tr>
<td>5.</td>
<td>Precipitation at Selected Stations in the Department of Lima.</td>
</tr>
<tr>
<td>6.</td>
<td>The Flora of the Lurín Valley.</td>
</tr>
<tr>
<td>7.</td>
<td>The Fauna of the Lurín Valley.</td>
</tr>
<tr>
<td>8.</td>
<td>Types of Architecture at Major LIP and LH sites.</td>
</tr>
<tr>
<td>9.</td>
<td>Freestanding Wall Heights and Widths.</td>
</tr>
<tr>
<td>10.</td>
<td>Measurements for Single and Multi-chambered Tombs.</td>
</tr>
<tr>
<td>11.</td>
<td>Measurements for Entrances.</td>
</tr>
<tr>
<td>12.</td>
<td>Measurements for Doors.</td>
</tr>
<tr>
<td>13.</td>
<td>Measurements for Doors with Barholds.</td>
</tr>
<tr>
<td>14.</td>
<td>Measurements for Sealed Doors and Entrances.</td>
</tr>
<tr>
<td>15.</td>
<td>Measurements for Niches.</td>
</tr>
<tr>
<td>16.</td>
<td>Measurements for Windows.</td>
</tr>
<tr>
<td>17.</td>
<td>Measurements for Communicating Holes.</td>
</tr>
<tr>
<td>18.</td>
<td>Measurements for Projecting Stones.</td>
</tr>
<tr>
<td>19.</td>
<td>Measurements for Projecting Bones.</td>
</tr>
<tr>
<td>20.</td>
<td>Measurements for Projecting Branches.</td>
</tr>
<tr>
<td>21.</td>
<td>Measurements for Stairs.</td>
</tr>
<tr>
<td>22.</td>
<td>Measurements for Projecting Stone Steps.</td>
</tr>
<tr>
<td>23.</td>
<td>Measurements for Wide Benches.</td>
</tr>
<tr>
<td>24.</td>
<td>Measurements for Narrow Benches.</td>
</tr>
<tr>
<td>25.</td>
<td>Measurements for Ramps.</td>
</tr>
<tr>
<td>26.</td>
<td>Measurements for Wall Decoration.</td>
</tr>
<tr>
<td>27.</td>
<td>Measurements for Roofing Material.</td>
</tr>
<tr>
<td>28.</td>
<td>Measurements for Vertical Posts.</td>
</tr>
</tbody>
</table>
LIST OF TABLES (cont.)

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.</td>
<td>Measurements for Pits.</td>
<td>309</td>
</tr>
<tr>
<td>30.</td>
<td>Measurements for Above-ground Compartments.</td>
<td>312</td>
</tr>
<tr>
<td>31.</td>
<td>Measurements for Subterranean Compartments.</td>
<td>314</td>
</tr>
<tr>
<td>32.</td>
<td>Association of Compartments with Rooms and Bones.</td>
<td>315</td>
</tr>
<tr>
<td>33.</td>
<td>Agricultural Terraces and Ditches.</td>
<td>329</td>
</tr>
<tr>
<td>34.</td>
<td>Ratio of Taxpayers to the Total Population.</td>
<td>360</td>
</tr>
<tr>
<td>35.</td>
<td>Maize Yields and Consumption Figures for Selected Areas.</td>
<td>362</td>
</tr>
<tr>
<td>36.</td>
<td>Sherd Totals by Year and Method of Collection.</td>
<td>396</td>
</tr>
<tr>
<td>37.</td>
<td>Percentage of Different Wares per Site.</td>
<td>409</td>
</tr>
<tr>
<td>38.</td>
<td>Size Variation among Cuzco Polychrome Vessels.</td>
<td>612</td>
</tr>
<tr>
<td>39.</td>
<td>List of Small Finds from Strong, Willey and Corbett's Excavation at Pachacamac.</td>
<td>737</td>
</tr>
<tr>
<td>40.</td>
<td>Preliminary Identification of Faunal Remains from Excavations at Panquilma and Avillay.</td>
<td>754</td>
</tr>
<tr>
<td>41.</td>
<td>Identification of Vegetal Material from Panquilma.</td>
<td>757</td>
</tr>
<tr>
<td>42.</td>
<td>Identification of Vegetal Material from Avillay.</td>
<td>806</td>
</tr>
<tr>
<td>43.</td>
<td>Summary of Small Finds other than Potsherds from all Excavations.</td>
<td>809</td>
</tr>
<tr>
<td>44.</td>
<td>Summary of Sherds from all Excavations by Pit, Ware and Layer.</td>
<td>813</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>828</td>
<td>Brown Ware Vessels and Rims from Forms I-XIII.</td>
</tr>
<tr>
<td>858</td>
<td>Dark Brown Ware Vessels and Rims from Forms I-IV.</td>
</tr>
<tr>
<td>866</td>
<td>Miscellaneous Brown Ware Sherds.</td>
</tr>
<tr>
<td>868</td>
<td>Orange Ware Vessels and Rims from Forms I-XVI.</td>
</tr>
<tr>
<td>937</td>
<td>Orange Ware Decorated Body Sherds and Miscellaneous Sherds.</td>
</tr>
<tr>
<td>949</td>
<td>Cuzco Style: Aryballoid Jars.</td>
</tr>
<tr>
<td>975</td>
<td>Cuzco Style: Two-handled Dishes.</td>
</tr>
<tr>
<td>985</td>
<td>Cuzco Style: Plates.</td>
</tr>
<tr>
<td>991</td>
<td>Cuzco Style: Pedestal Base Ollas.</td>
</tr>
<tr>
<td>999</td>
<td>Cuzco Style: Other Jars.</td>
</tr>
<tr>
<td>1003</td>
<td>Cuzco Style: Bowls.</td>
</tr>
<tr>
<td>1005</td>
<td>Cuzco Style: Miscellaneous.</td>
</tr>
<tr>
<td>1009</td>
<td>Black Ware: Elaborate Jars.</td>
</tr>
<tr>
<td>1013</td>
<td>Black Ware: Other Jars.</td>
</tr>
<tr>
<td>1015</td>
<td>Black Ware: Two-handled Dishes.</td>
</tr>
<tr>
<td>1019</td>
<td>Black Ware: Bowls, Ollas and Plates.</td>
</tr>
<tr>
<td>1025</td>
<td>Black Ware: Miniature Bowls and Miscellaneous Sherds.</td>
</tr>
<tr>
<td>1027</td>
<td>Colonial, Modern and Early Horizon Vessels and Sherds.</td>
</tr>
<tr>
<td>1029</td>
<td>Early Intermediate Period Vessels and Rims.</td>
</tr>
<tr>
<td>1031</td>
<td>Rims from Huarochiña: Various Wares.</td>
</tr>
<tr>
<td>1033</td>
<td>Other Ceramic Artefacts.</td>
</tr>
<tr>
<td>1035</td>
<td>Ceramic and Stone Artefacts.</td>
</tr>
<tr>
<td>1037</td>
<td>Stone Artefacts.</td>
</tr>
<tr>
<td>1039</td>
<td>Bone and Wood Artefacts.</td>
</tr>
<tr>
<td>1041</td>
<td>Wood Artefacts.</td>
</tr>
<tr>
<td>Page</td>
<td>LIST OF FIGURES (cont.)</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>CIV</td>
<td>Wood and Metal Artefacts.</td>
</tr>
<tr>
<td>CV</td>
<td>Metal, Shell and Glass Artefacts.</td>
</tr>
<tr>
<td>CVI</td>
<td>Leather, Textile and Fibre Artefacts.</td>
</tr>
<tr>
<td>CVII-CVIII</td>
<td>Wall Decoration.</td>
</tr>
<tr>
<td>CIX</td>
<td>Profile and Cross-section of the Lurin Valley.</td>
</tr>
<tr>
<td>CX</td>
<td>PV48-1, Pachacamac, Test Pit A, Plan.</td>
</tr>
<tr>
<td>CXI</td>
<td>Panquilma Test Pit 1, Section of the Southwest Face.</td>
</tr>
<tr>
<td>CXII</td>
<td>Panquilma Test Pit 1, Section of the Northeast Face.</td>
</tr>
<tr>
<td>CXIII</td>
<td>Panquilma Test Pit 1, Section of the Southeast Face.</td>
</tr>
<tr>
<td>CXIV</td>
<td>Panquilma Test Pit 1, Plan after clearing Layer 8.</td>
</tr>
<tr>
<td>CXV</td>
<td>Avillay Test Pits 1 and 2, Sections.</td>
</tr>
<tr>
<td>CXVI</td>
<td>Avillay Test Pits 3 and 4, Sections.</td>
</tr>
<tr>
<td>CXVII</td>
<td>Avillay Test Pit 5, Sections.</td>
</tr>
<tr>
<td>CXVIII</td>
<td>Avillay Test Pit 6, Plan and Section.</td>
</tr>
<tr>
<td>CXIX</td>
<td>Avillay Test Pit 7, Section.</td>
</tr>
<tr>
<td>CXX</td>
<td>Avillay Test Pit 8, Plan.</td>
</tr>
<tr>
<td>CXXI-CXXIII</td>
<td>Avillay Test Pit 8, Sections.</td>
</tr>
<tr>
<td>CXXIV</td>
<td>Avillay Test Pit 9, Plan</td>
</tr>
<tr>
<td>CXXV-CXXVI</td>
<td>Avillay Test Pit 9, Sections.</td>
</tr>
<tr>
<td>CXXVII</td>
<td>Avillay Test Pits 9 and 10, Sections.</td>
</tr>
<tr>
<td>CXXVIII</td>
<td>Avillay Test Pit 11, Plan.</td>
</tr>
<tr>
<td>CXXIX</td>
<td>Avillay Test Pit 11, Sections.</td>
</tr>
<tr>
<td>CXXX</td>
<td>Avillay Compartment 3, Section.</td>
</tr>
<tr>
<td>CXXXI</td>
<td>Avillay Compartments 4, 5 and 6, Plan.</td>
</tr>
<tr>
<td>CXXXII</td>
<td>Avillay Compartments 4 and 5, Sections.</td>
</tr>
<tr>
<td>CXXXIII</td>
<td>Avillay Compartments 5 and 6, Sections.</td>
</tr>
</tbody>
</table>
LIST OF MAPS

I. GENERAL MAPS (G.M.)

1. The Central Coast of Peru and the Adjacent Highlands.
2. The Lurín Valley, showing important sites during the Late Horizon and communications with neighbouring valleys.
3. The Study Area, showing the sites located by the 1966 survey team.
4. The Study Area, showing the extent of occupation during the Early Horizon.
5. The Study Area, showing the extent of occupation during the Early Intermediate Period and the Early Middle Horizon.
6. The Study Area, showing the extent of occupation during the Late Middle Horizon and the Late Intermediate Period.
7. The Study Area, showing the extent of occupation during the Late Horizon.
8. The Study Area, showing the extent of occupation during the Colonial Period.
9. The Study Area, showing the major modern irrigation ditches and the ancient ones.

II. SITE MAPS (S.M.)

A. North Bank

1. The Chaimayanca quebrada.
2. Quebradas near Sisicaya.
3. The Canturía quebrada.
4. The Avillay and Nieve-Nieve quebradas.
5. The San Martín quebrada.
6. The Yanacoto and Guayabal quebradas.
7. Chontay.
8. The San Isidro quebrada.
9. The San Vicente quebrada.
10. The San Francisco quebrada.
11. San José.
12. The Molle quebrada.
II. SITE MAPS (S.M.) (continued)

B. South Bank

13. Panquilma.
14. The Huaycán quebrada.
15. The Río Seco quebrada.
17. Pichicato.
18. The Antivales quebrada.
19. South Chontay and Sierra Morena.
20. The Anchucaya quebrada.
22. Balconcillo de la Palma.
23. The Huarangal and Antapucro quebradas.

III. SITE PLANS (S.P.)

1. Chaimayanca - site 164.
2. Sisicaya - site 169.
3A) Avillay - site 137.
3B) Avillay - site 137.
5. San Martín - site 135.
7A) San José terraces - sites 60 and 62.
7B) San José terraces - sites 60 and 62.
12A) Antivales-Lindero - site 84.
12B) Antivales-Lindero - site 84.
12C) Antivales - site 86
13. Antivales - site 86
14. Santa Rosa - site 104.
III. SITE PLANS (S.P.) (continued)

15. Sierra Morena - site 108.
17. Anchucaya - site 113.
18A) Vichuya - site 109.
18C)
19. Antapucro - site 353.
20. Pachacamac - site 1.

IV. CHARTS

I. Surface Collections from Late Horizon Sites Tabulated by Ware, Form, Site and Year of Collection.

II. Surface Collections from Late Intermediate Period and Other Sites Tabulated as above. Sherds from Excavations at Pachacamac and Panquilma Tabulated by Ware, Form and Excavation Layer.

III. Sherds from Excavations at Avillay Tabulated by Ware, Form and Excavation Layer.

IV. Small Finds from Excavations at Panquilma and Avillay Tabulated as above. Sherd Numbers and Percentages for the Random Sample. Small Finds from Surface Collections.
PREFACE

This study owes a good deal to the help and advice given to me over a number of years by people in three different countries. First and foremost, my debt to the Peruvian people is enormous because they allowed me to work in the Lurín Valley. One particularly involved in my work was Dra Isabel Flores Espinoza of the Instituto Nacional de Cultura, to whom I am very grateful for her assistance in setting up the project and her advice on its administration. Dra María Rostworowski de Diez Canseco, Directora del Museo Nacional de Historia, gave me insight into the ethnohistory of the Lurín and made available unpublished documents. My heartfelt gratitude also goes to the four Peruvian students, Carlos Elera, Carlos Escobar McEvoy, Natalia Lara Vargas and Lourdes Barrantes Sánchez, who accompanied me into the field and shouldered some onerous burdens. Dr Alberto Bueno Mendoza, archaeologist in charge of the Lurín, has given helpful information and allowed me to work at Pachacamac and to store collections at Puente de Lurín. I am also grateful to Dr Arturo Jiménez Borja and Ponciano Paredes Botoni for countless favours, and to Eulogio Gómez, whose knowledge of Pachacamac is superior to that of any archaeologist. The fieldwork would never have been accomplished without the loyal support of Francisco Asencios Chacón and Francisco Flores Vargas, who undertook so many tasks cheerfully and assisted with the sorting and identification of the fauna and flora. In the valley mention must be made of the kindness of the Pariona family at Nieve Nieve, particularly César, his sister Elena and his son Juan, who have sheltered me on various occasions and assisted in the fieldwork; of the Cosme Zevallos family
of Sisicaya; and of Fidel Aquise and Carlos de la Cruz of Huaycán.
In Chontay I am indebted to Dr Augusto Bedoya, owner of Sierra Morena,
for letting me live at the farm, and to his family and the Benigno
family for their hospitality. At Santo Domingo de los Olleros there
are many villagers who willingly answered my questions and gave us
food and shelter, in particular, Tomás Reyes, Julio Obispo, Carlos
Pérez Obispo and his mother, Hilaria Javier.

In the United States I should like to thank Dr Shirley Gorenstein
and Dr Edward Lanning, both formerly of Columbia University, who first
stimulated my interest in Peru and gave me every help and encouragement
to go there; also Dr Thomas Patterson, now of Temple University, who
supervised the project in its initial stages, loaned a jeep and
equipment in the field, and generously provided access to notes and
collections. In Philadelphia Dr A.V.N. Sarma of Temple University
and his family have given me much assistance with lodging and laboratory
facilities, as has Muriel Kirkpatrick, Laboratory Coordinator at Temple.
Miss Claudia Medoff, Keeper of American Section Collections at the
Museum of the University of Pennsylvania, kindly allowed me to examine
the Uhle material. In New York I greatly appreciate the assistance
of the late Dr Junius Bird, Curator Emeritus of the Museum of Natural
History, and Dr Craig Morris, Assistant Curator, who made available
the Strong and Corbett collections and notes on Pachacamac and provided
me with additional information. Barbara Conklin, of the same museum,
remembered the existence of the Bandelier collections and found the
relevant catalogue. Bob Sonin provided valuable information on
ceramics. I am also grateful to Drs Gordon and Helen Pollard of the
State University of New York at Plattsburgh for information and
encouragement, and to Gene McDougle for help in the field.
Last but not least, in England I should like to thank Dr Ann Kendall, Director of the Cusichaca Project, for many helpful discussions; Dr E.J. Cobbing of The Institute of Geological Sciences for information on the geology of the valley and identification of rocks and minerals; Dr Nigel Seeley of the Institute of Archaeology for help with the ceramic analysis; Dr Warwick Bray for his encouragement and assistance with the preparation of this thesis; and Judith Harris for typing the manuscript.

The fieldwork and part of the writing-up have been financed by a Senior Studentship from the Leverhulme Trust Fund, and the travel by a grant from the Central Research Funds of London University. I am grateful to both organisations for this support. In Peru the earlier fieldwork was carried out under Dr Patterson's 1967 research permit RS-528 and the recent fieldwork under permit RS-240-78-ED granted to me by the Peruvian government.
CHAPTER ONE

INTRODUCTION

The Lurín valley presents a paradox. On the one hand, it is among the smaller central coast valleys with a second class river whose average run-off does not reach the minimum of the Chillón’s, thereby restricting the agricultural potential of the area. Yet on the other hand, Pachacamac, one of the most important coastal settlements of ancient Peru, is situated at its mouth and this site’s existence undoubtedly influenced the way the Incas treated the valley after conquering it in the 15th century. It was to explain the rise and possible decline of Pachacamac in terms of the Lurín hinterland that the Lurín Valley Project was initiated in 1966 by Dr Thomas Patterson, then of Harvard University. At that time little archaeological work had been carried out in the actual valley, although Pachacamac had received a great deal of attention. Consequently, it was hoped that much new information would be obtained.

The immediate aims of the project were to survey all of the river valley that might properly be considered "coast", as opposed to "highlands", i.e. up to Cruz de Laya which is about 1500 metres above sea level. Here the two tributaries of the Lurín, the río de San Damián, (the Lurín proper), and the río de Langa meet, (map G.M. 2). It was hoped to locate all the sites in this area, which extends for 63 kilometres inwards from the shoreline, to date them and to carry out a settlement pattern study. Such a study would be used to explain changes in population size and distribution during the entire human occupation of the valley, from the Preceramic to the Colonial period. During the 1960's definitions of urbanism were being applied to
pre-Columbian Andean cultures and it was hypothesised that Pachacamac was a city at some point in its history, probably during the Middle Horizon, and that it later reverted to a ceremonial centre during subsequent periods (Rowe 1963, p.12, 15, 17; Lanning 1967, p.135).

It was hoped that the findings of the project on settlement within the valley would resolve this problem and determine how much highland influence there was on the coast, particularly during the Early and Middle Horizons.

The methods chosen were intensive archaeological survey and a limited amount of excavation. A small team of students from Harvard, Berkeley and Columbia universities accompanied Dr Patterson to Peru in the summer months of 1966. During their three months in the field they surveyed the quebrada fans and valley sides and from the base of the slope to the ridge top, as well as part of the valley floor, if an ancient mound was visible. 350 sites were located, a good proportion of which are scatters of sherds or worked stone situated behind the dune that flanks the long beach known as the "Playa de Conchán" to the north of the Pachacamac ruins. This area is known as the Tablada de Lurín and has received recent attention from archaeologists, but is beyond the scope of this study. Most of the other sites are at the edge of the cultivated area. From the site notes it would seem that the valley floor was not systematically surveyed. Certainly it would be difficult to find ancient cultural remains there, because it has been intensively cultivated from Cieneguilla to the shore. The team also carried out a small excavation in the environs of Pachacamac. This is discussed in Appendix II.

At each site a sample of the portable cultural material was collected according to the criterion of what appeared to be diagnostic. Most of the material is ceramic, but some sites, notably those close to
the shore, yielded only worked stone. There is also a substantial number of textiles.\textsuperscript{4} All these collections were shipped to the United States and are currently stored at Temple University in Philadelphia.

The surveying and collecting methods have some drawbacks. Those that concern ceramics are discussed in Appendix I. Others are as follows:-\textsuperscript{5} Firstly, the pressures of field life resulted in the survey's being carried out in a haphazard fashion. One day the team would be upvalley and the next downvalley. Since the sites were numbered in the order in which they were found, one number may be near Antioquía and the next in sequence near Pachacamac. This meant that it was harder for the team members to obtain a clear picture of any one zone, and it was not easy to make comparisons between sites as the work proceeded. Secondly, it was assumed rather than demonstrated that the valley floor contained no sites, but it is possible that some have been ploughed under because of the extension of the cultivated area, particularly downvalley from Manchay. This point needs to be checked in the future. Thirdly, there was no consistent definition of what constitutes a site. Vague definitions can be hazardous if comparisons are made between the number of sites per time period.\textsuperscript{5} Fourthly, even in my own small study area not all sites with architecture were noted on the first survey. Site 353 was missed completely, as was another site on the hill top above sites 26 and 28, and also a large portion of 113. Therefore, it is likely that sites have been missed in the larger area downvalley. Fifthly, since no random method of sampling was used, it is not certain that the collections are representative of their sites.\textsuperscript{6} In spite of such drawbacks, however, there is still a considerable amount of data to provide a solid base for future work.
To date there have been some published results for the Preceramic Period, the Early Horizon and the Early Intermediate Period. More are planned for the near future. During 1968 both Harry Scheele and Timothy Earle worked in the study area chosen by me, the former concentrating on the Early Horizon in the valley, and the latter on the Early Intermediate Period from Molle to Palma. Neither study is complete, for I believe that there are more Early Horizon sites in the valley than Scheele allowed for, as I have indicated on map G.M. 4. It is likely that some of the pottery thought to belong to the Early Intermediate Period belongs as well in the Early Horizon. Excavation for radiocarbon samples should confirm this. Scheele concentrated on local manifestations of U-shaped structures rather than domestic habitation, which is the aspect that requires further work. Earle's study suffers from his not taking into account mixed-period or long-occupation sites, so that many sites at which Early Intermediate Period pottery can be identified are not considered, e.g. 137, 169, 159, 164, 35, 160 and 90. Consequently his remarks on settlement and population changes will have to be adjusted. In addition, in his survey of irrigation ditches, he did not check out the ancient extensions or obtain correct information on the modern ditches, so that much of his published discussion is worthless. Because of the lacunae in the above-mentioned works, it has been necessary to devote a considerable portion of this thesis to dating sites in the study area.

My own task was to investigate the late sites in the Lurín and their relationship to Pachacamac. Originally I had intended to investigate the urban status of the latter, but when it became obvious that excavation there would require a larger expenditure on labour than my budget could accommodate, it was decided to work entirely in the valley interior. At the same time it was clear that one person could
not cover all the area originally surveyed, so a study area was chosen for intensive investigation. It lies between the quebradas of Molle and Chaimayanca on the north or right bank, and between the quebradas of Panquilma and Antapucro on the south or left bank, as maps G.M. 2 and 3 will show. It comprises the valley floor and hill slopes from the 400 to the 1000 metre contour line.

This area was chosen for several reasons. In the first place, both Earle and Scheele had worked there and could provide information on the early periods. Secondly, it was a small area, 20 kilometres long and 0.5-1 kilometre wide, so that it could be surveyed intensively by one or two people. A vehicle would have been needed further downvalley, and upvalley the sites are much higher above the valley floor and take longer to reach on foot. Thirdly, it is difficult for irrigation to expand in this sector, where the river cuts steeply through the hills. Therefore the sites were not likely to have been covered by recent agricultural activities, as happened downvalley at site 12, "Pampa de las Flores", (Bonavía 1965, p.15 and láminas 2 and 9). Fourthly, with the exception of the Antapucro ditch which begins further upvalley, it is a self-contained irrigation area. Fifthly, this mid-valley zone is part of the Chaupi Yunga, of great economic importance during Pre-Columbian times because coca can be grown there. Finally, because the area lay almost equidistant between the shore and the highlands, it was hoped that intensive study might throw light on coast-highland relationships that have been an important force behind Andean cultural development.
In archaeological terms my aims were as follows:-

a) to examine the sites that had been tentatively dated as late by Patterson's students.

b) to map the major late sites.

c) to obtain more information on ceramics in order to differentiate between Late Intermediate Period and Late Horizon pottery.

d) to put in limited excavations in order to ascertain the function of buildings.

e) to survey the land and irrigation ditches in order to calculate the amount under cultivation during the late pre-historic periods.

f) to assess the amount of Inca influence in the valley during the Late Horizon.

How far these aims have been achieved can be seen from the conclusions. Certainly the question of the function of structures still requires attention and the ceramic analysis needs the support of radiocarbon dates. It is hoped to tackle these problems in the near future.

The study area was further divided into four sectors in order to facilitate description and analysis. From east to west these are: Sisicaya, Chontay, Piedra Liza and Huaycán, (see maps G.M. 2, 3 and 9). Similar divisions are recognised by the local inhabitants.

The Sisicaya sector begins at the quebrada of Chaimayanca on the north bank, and the quebrada of Antapucro on the south bank. It is irrigated by ditches I, II, III, XV and XVI. In fact, the area of the south bank watered by the Antapucro ditch, no. XVII, should really be
discounted from the study since it is part of the Chillaco sector upvalley. It has been included because the study area was defined before the irrigation ditches were surveyed and the relationship between ditches and sectors became apparent. In addition, sites 353, 177 and 175 are unusual and provide interesting comparative material.

The Chontay sector begins at the quebrada of San Martín on the north bank, and the Vichuya hills on the south bank, where ditch XIV begins. This sector is irrigated by ditches IV, V, VI, VII, XIII and XIV. It ends as the valley begins to narrow, just past the quebrada of Antivales on the south bank.

The Piedra Liza sector is the narrowest part of the study area. It is irrigated by short ditches, some of which are recent and therefore unnumbered on map G.M. 9. The ancient ditches are nos. VIII and XII. The latter begins in Chontay, which makes it probable that before the Spanish conquest these three sectors were all part of Sisicaya. 14

The fourth sector, Huaycán, is the most easily defined because the ditches of San Francisco, no. IX, and Huaycán, no. XI, begin a little after a prominent hummock on the south bank, at a point where the valley is at its narrowest. The sector ends at the modern bridge over the river at Cieneguilla where the Molle ditch, no. X, ends and the river bends to flow southwest.

Fieldwork took place from 1968 to 1969 and during 1978. In the first season some survey work was carried out both inside and outside the study area, and a map was made of the structures on the quebrada floor and lower slopes of site 137. This site was originally chosen for mapping and excavation because at the time it was thought to be where the Inca tambo was situated. In fact, this view proved to be mistaken, but it was a fortunate choice because part of the site has
since been destroyed to make way for a camp for road workers. Excavations were carried out at both sites 137 and 35. During the 1978 field season plans were made of the major Late Horizon sites and extensive notes were taken on architectural features. In addition, the irrigation ditches were surveyed and the ancient ones traced on a map. A discussion on these tasks and a clarification of terminology follow.

1. **Mapping**

   a. **Site Plans S.P. Nos. 1 – 20**

      It was originally proposed to make plans of all sites occupied during the Late Horizon, but lack of time did not allow sites 84 and 96 to be mapped. There is, however, a plan of some structures at site 84, made with a theodolite by Sandra Negro of the Universidad de Ricardo Palma. She has also made plans, all at the scale of 1:100, of certain structures at sites 28, 57, 86, 136 and 137 for Alberto Bueno, the archaeologist in charge of the Lurín valley. He hopes to publish these in the near future. Each of these plans, however, includes only a portion of the site, so that a good general plan was needed to show the relationships between the major and minor structures and between these and natural or man-made features. I have attempted to do this using a Gurley alidade and plane table to map fifteen late sites. It is true that the size of the plane table necessarily determines the scale of the plan, which is 1:500 for ten of the plans and 1:1000 for four others, but such scales are effective in that they allow sufficient space to plot artefactual and feature distributions, while giving plenty of detail. Usually only the lower slopes and floor
of a quebrada could be mapped by this method, since it was too
difficult and time-consuming to carry the instruments up steep slopes.
This does not affect the downvalley plans, where there is little
occupation on the upper slopes, but it has affected the plans of sites
137 and 164, where there is extensive ridge-top occupation. At four
sites, where it was too difficult to transport the instruments or there
was not time to map the entire site, plans were made of one or two
outstanding structures, using compass, tape and level. Such sites
were 66, 109, 169 and 84. For Pachacamac I have used Strong, Willey
and Corbett's plan (Strong and Corbett 1943, fig. 1) with additions of
my own. It might be asked why air photos were not used to provide
base maps, as had been done elsewhere for Peru. Unfortunately, there
is only one poor series of photos from a 1962 flight for the Lurín
valley. Even when these are blown up or used with a stereoscope,
they do not reveal the sites clearly. Until a better set can be made,
any method of photogrammetry will not give useful results.

In mapping with the alidade, the outline of structures was measured
with the instrument, and a tape and level were used to plot the interior
walls. Where walls are too ruined for the structures to be plotted,
this has been indicated on the plan. In certain cases, as at site 57,
only the outline of a major structure has been given because the interior
requires excavation. In addition, because of the debris from fallen
walls it is often impossible to indicate the access to a room, so that
walls have had to be mapped as continuous and some rooms appear to have
no access. In most instances of seemingly inaccessible rooms, there
was probably an entrance somewhere with a high threshold step, which has
effectively obscured it when the wall collapsed. In other cases, however,
there probably was no access by conventional means, as will be seen from
the discussion in Chapter Five of access patterns at site 136.
b. **Site Maps S.M. Nos. 1 - 24**

These show the spatial relationships of sites to one another, particularly where there are several in one quebrada or along a hill slope. I decided that the site location map for the study area, (G.M. 3), gives too little information about sites and have therefore made a series of enlargements of the 1:25,000 map of the study area, made by the Instituto Geográfico Militar (I.G.M.). Where a site plan was made, the site can easily be transferred to these contour maps because readings were taken on identifiable features but, for the early sites and such late sites that I have not been able to map, I have had to rely on estimates from my own survey work and the field notes of the original survey team. Our observations do not always coincide, particularly with regard to area, so that I am confident that the location of these sites is correct, but their area, as shown on the plan, may be wrong.

c. **General Maps G.M. Nos. 1 - 9**

These show inter- and intra-valley communications, irrigation ditches and general site locations. I have used three sources to make them:– the 1977 I.G.M. maps of the Lurín valley and Huarochirí, (hojas 25-j and 25-k), which have a scale of 1:100,000; the 1955 I.G.M. maps of the Lima and Mala zones, (hojas 12-a and 12-b), which have a scale of 1:200,000; and the 1962 air photos, which have the awkward scale of 1:62,500. These last were used by Dr Thomas Patterson to make the original, as yet unpublished, site map of the valley. I have made use of the information on it, supplemented by my own observations. The older of the I.G.M. maps better shows inter-valley communications. The recent one shows more features and gives better details on land use. Unfortunately, the place names on the two map
series do not always coincide. In order that my work should correspond with that of Alberto Bueno, I have used the names on the recent map, although I believe the older map to have the authentic names. It should also be stated that on the Peruvian National Grid System all sites are close to the river between points 307 8663 and 325 8669.

2. Excavations

My own and those of other workers are fully described in Appendix II. In the 1968/9 field season eleven test pits, about 1 by 3 or 2 by 2 metres, were placed in various locations at site 137. Six small compartments were also cleared, and another test pit dug at site 35. At the former site three of the pits (nos. 1, 2 and 3) were placed in terraces in order to ascertain whether these could have been used as dwellings with perishable superstructures. The three terraces were chosen mainly for ease of access with the equipment. Three pits (nos. 4, 5 and 6) were put in the courtyards of the patio group, and one (no. 9) in the courtyard in front of the gabled room, in order to ascertain the function of these spaces. Pit no. 8 was placed inside the gabled room for the same reason, and three others (nos. 7, 10 and 11) were placed in refuse heaps, as was the one at site 35. It was hoped that the refuse heaps would provide a long sequence of deposition from the Late Intermediate Period to the Late Horizon. In fact the refuse turned out to be looters' backdirt from the post-conquest sacking of tombs and could not be used to provide a ceramic sequence since the sherds were mixed. It is instructive that the pits in rooms and terraces yielded far less material than those dug in the so-called refuse.

The sherds from the excavations and surface collections of all
field seasons form the basis for the ceramic study in Appendix I. All sherds from excavations were saved with the exception of plain Brown Ware body sherds from site 137. These were sorted, counted and discarded in the field. All the excavation fill was screened with a centimetre square mesh and re-examined after sifting, so that only the smallest seeds and bone fragments would have escaped our notice. All the vegetal material, bone and shell in the screen was saved from the excavation at site 35. At site 137, a representative sample of these categories was saved with the help of Francisco Flores, who was able to identify most of the bone and plants. All this material and the artefacts are stored at the Casa de la Guardianía de las ruinas de Pachacamac in Puente de Lurín. The only exception is the human skeletal material from 137. This was replaced in its respective pit before backfilling, since there were no adequate transport or storage facilities for it.

3. Survey Work

This involved surface collecting, for which methods are described in Appendix I, note-taking and the survey of irrigation ditches. At all mapped sites and some unmapped ones extensive notes were taken by students and myself on architectural features of rooms and courtyards in good condition, and on the surface distribution of artefacts. The features were measured and recorded on specially prepared sheets. Because of our poor knowledge of this kind of architecture, it was decided to record as much as possible rather than sample the different buildings of a site. More time was devoted to note-taking than to any other archaeological activity in the field, but it should pay dividends in the long run, by allowing us to plan the future excavation programme better.
All Late Horizon sites shown on map G.M. 2 in the study area have been visited by me, as have most Late Intermediate Period sites, with the exception of site 166 and a few on the south bank of Huaycán. I have also visited some Early Intermediate Period sites, such as 58, 106 and 177, in order to obtain comparative material. Both banks in the study area have been carefully surveyed for irrigation ditches by me and Peruvian students, so that I do not feel that any ditch has been missed. However the ditches on my map G.M. 9 do not correspond entirely to the list given by Arenas and La Rosa. The main difficulty lies in the area from Chontay to Sisicaya where they list more than I have found. There would be a greater correspondence if it were certain that the ditches named by them Alto and Bajo were to come from the same intake point, being merely the upper and lower branch of the same ditch. In any case, their ditches are listed in a jumbled fashion and they give no map of the Sisicaya area. When they refer in their text to Sisicaya, they usually state "sin datos", so that their list must be considered suspect. There are also some very short ditches on map G.M. 9. These appear to have been dug recently and are connected with the Land Reform Act of the late sixties. They have not been given a number.

4. Dating

The conventional "Berkeley" division of Andean prehistory into Horizons and Intermediate Periods has been followed here. These are abbreviated to initial letters for the rest of the study. It will be noted that the Middle Horizon presents a problem for which further research is needed. Therefore, I have divided the period, placing the early half with the Early Intermediate Period and the latter half with
the Late Intermediate Period, as the ceramic analysis suggests. For the present I have used the absolute dates suggested by Lanning because his are round numbers (Lanning 1967, p.25). Until a series of radiocarbon dates is obtained, it is impossible to decide which of Rowe's scales to use (Rowe 1967, p.25, table 3). It should be recalled, however, that although in the "Berkeley" scheme the Late Horizon is assumed to begin around 1476, this is the date for the conquest of the Ica valley by the Incas. Their conquest of the central coast took place a few years earlier, between 1463 and 1471 (Rowe 1967, p.10 and 1946, pp.203-207).

5. Site Nomenclature

The Rowe system of nomenclature (Bonavia 1966) was used by the original survey team, PV48 standing for the Lurín valley. Alberto Bueno, on the other hand, has given names derived from local quebradas to the major late sites. He prefers that the names be used where possible, so that my site plans contain both the number and the name of the site. For the sake of brevity, however, I have used the site number in this study except for sites 35 and 137. These are usually referred to respectively as Panquilma and Avillay in order to avoid a jumble of numbers, since the excavations took place there. Table 1, which follows, lists all sites together with their area, date and page reference. This last is for the convenience of those who merely want to obtain information on particular sites.
TABLE 1

A LIST OF SITES IN THE STUDY AREA: THEIR NAME, DATE, AREA AND PAGE REFERENCE

A. North Bank

<table>
<thead>
<tr>
<th>Site No</th>
<th>Name</th>
<th>Area ha</th>
<th>EH</th>
<th>EIP/MH</th>
<th>MH/LIP</th>
<th>LH</th>
<th>C</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>Chaimayanca</td>
<td>50.00*</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>74</td>
</tr>
<tr>
<td>159</td>
<td>Piedra Angel</td>
<td>10.00</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>81</td>
</tr>
<tr>
<td>161</td>
<td>-</td>
<td>0.50</td>
<td>?</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>82</td>
</tr>
<tr>
<td>173</td>
<td>San José</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>83</td>
</tr>
<tr>
<td>171</td>
<td>-</td>
<td>?</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>83</td>
</tr>
<tr>
<td>169</td>
<td>Sisicaya</td>
<td>2.50*</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>84</td>
</tr>
<tr>
<td>167</td>
<td>Canturía</td>
<td>&lt;0.25</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>86</td>
</tr>
<tr>
<td>165</td>
<td>Canturía</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>88</td>
</tr>
<tr>
<td>160</td>
<td>-</td>
<td>0.25</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>88</td>
</tr>
<tr>
<td>158</td>
<td>-</td>
<td>0.75</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>89</td>
</tr>
<tr>
<td>137</td>
<td>Avillay</td>
<td>46.50*</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>91</td>
</tr>
<tr>
<td>136</td>
<td>Nieve-Nieve</td>
<td>5.50*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>100</td>
</tr>
<tr>
<td>354</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>105</td>
</tr>
<tr>
<td>135</td>
<td>San Martín</td>
<td>2.50*</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>106</td>
</tr>
<tr>
<td>134</td>
<td>-</td>
<td>1.50</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>109</td>
</tr>
<tr>
<td>132</td>
<td>-</td>
<td>0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>109</td>
</tr>
<tr>
<td>130</td>
<td>-</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>110</td>
</tr>
<tr>
<td>128</td>
<td>-</td>
<td>0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>112</td>
</tr>
<tr>
<td>126</td>
<td>-</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>113</td>
</tr>
<tr>
<td>124</td>
<td>-</td>
<td>0.75</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>111</td>
</tr>
<tr>
<td>99</td>
<td>Yanacoto</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>113</td>
</tr>
<tr>
<td>103</td>
<td>-</td>
<td>2.00</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>115</td>
</tr>
<tr>
<td>101</td>
<td>Guayabal</td>
<td>0.50</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>115</td>
</tr>
<tr>
<td>105</td>
<td>Chontay</td>
<td>0.50</td>
<td>?</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>116</td>
</tr>
<tr>
<td>107</td>
<td>-</td>
<td>0.50</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>117</td>
</tr>
<tr>
<td>102</td>
<td>San Isidro</td>
<td>4.00</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>120</td>
</tr>
<tr>
<td>100</td>
<td>-</td>
<td>&lt;0.25</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>121</td>
</tr>
<tr>
<td>98B</td>
<td>-</td>
<td>2.50</td>
<td>?</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>122</td>
</tr>
</tbody>
</table>
### TABLE 1 (cont.)

#### A. North Bank (cont.)

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Name</th>
<th>Area ha</th>
<th>EH</th>
<th>EIP/MH</th>
<th>MH/LIP</th>
<th>LH</th>
<th>C</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>98</td>
<td>San Vicente</td>
<td>11.00</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>122</td>
</tr>
<tr>
<td>115</td>
<td>San Vicente</td>
<td>0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>125</td>
</tr>
<tr>
<td>78</td>
<td>Piedra Liza</td>
<td>1.25</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>?</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>North</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td></td>
<td>0.50</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>126</td>
</tr>
<tr>
<td>74</td>
<td></td>
<td>&lt;0.25</td>
<td>-</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>127</td>
</tr>
<tr>
<td>72</td>
<td></td>
<td>&lt;0.25</td>
<td>-</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>127</td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>&lt;0.25</td>
<td>-</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>127</td>
</tr>
<tr>
<td>68</td>
<td>San Francisco</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>128</td>
</tr>
<tr>
<td>66</td>
<td>San Francisco</td>
<td>2.50*</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>129</td>
</tr>
<tr>
<td>64</td>
<td></td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>130</td>
</tr>
<tr>
<td>62</td>
<td>San José)</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>131</td>
</tr>
<tr>
<td>60</td>
<td>San José)</td>
<td>3.00*</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>131</td>
</tr>
<tr>
<td>58</td>
<td></td>
<td>0.50</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>135</td>
</tr>
<tr>
<td>34</td>
<td></td>
<td>0.50</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>136</td>
</tr>
<tr>
<td>30</td>
<td>Molle</td>
<td>0.25</td>
<td>?</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>137</td>
</tr>
<tr>
<td>28</td>
<td>Molle</td>
<td>5.50*</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>139</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td>0.25</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>138</td>
</tr>
</tbody>
</table>

#### B. South Bank

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Name</th>
<th>Area ha</th>
<th>EH</th>
<th>EIP/MH</th>
<th>MH/LIP</th>
<th>LH</th>
<th>C</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>Panquilma</td>
<td>22.00*</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>148</td>
</tr>
<tr>
<td>33</td>
<td>Panquilma</td>
<td>0.25</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>152</td>
</tr>
<tr>
<td>31</td>
<td>Panquilma</td>
<td>4.00</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>153</td>
</tr>
<tr>
<td>51</td>
<td>Panquilma</td>
<td>0.50</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>154</td>
</tr>
<tr>
<td>53</td>
<td>Panquilma</td>
<td>0.25</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>154</td>
</tr>
<tr>
<td>54</td>
<td>Panquilma</td>
<td>0.25</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>155</td>
</tr>
<tr>
<td>55</td>
<td>Panquilma</td>
<td>2.00</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>156</td>
</tr>
<tr>
<td>56</td>
<td>Panquilma</td>
<td>1.00</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>156</td>
</tr>
<tr>
<td>57</td>
<td>Huaycán</td>
<td>18.00*</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>157</td>
</tr>
<tr>
<td>59</td>
<td></td>
<td>0.75</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>165</td>
</tr>
<tr>
<td>61</td>
<td></td>
<td>1.50</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>165</td>
</tr>
<tr>
<td>67</td>
<td></td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>166</td>
</tr>
</tbody>
</table>
### TABLE 1 (cont.)

**B. South Bank (cont.)**

<table>
<thead>
<tr>
<th>Site No</th>
<th>Name</th>
<th>Area ha</th>
<th>EH</th>
<th>EIP/MH</th>
<th>MH/LIP</th>
<th>LH</th>
<th>C</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>63</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>?</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>166</td>
</tr>
<tr>
<td>65</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>167</td>
</tr>
<tr>
<td>69</td>
<td>-</td>
<td>&lt;0.25</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>168</td>
</tr>
<tr>
<td>75</td>
<td>-</td>
<td>0.25</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>168</td>
</tr>
<tr>
<td>71</td>
<td>Río Seco</td>
<td>4.50*</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>169</td>
</tr>
<tr>
<td>77</td>
<td>Río Seco</td>
<td>-</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>173</td>
</tr>
<tr>
<td>73</td>
<td>-</td>
<td>3.50</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>173</td>
</tr>
<tr>
<td>79</td>
<td>-</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>174</td>
</tr>
<tr>
<td>81</td>
<td>-</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>174</td>
</tr>
<tr>
<td>80</td>
<td>-</td>
<td>0.50</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>175</td>
</tr>
<tr>
<td>83</td>
<td>Chirimoyo</td>
<td>0.50</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>175</td>
</tr>
<tr>
<td>85</td>
<td>-</td>
<td>&lt;0.25</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>177</td>
</tr>
<tr>
<td>89</td>
<td>-</td>
<td>0.25</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>179</td>
</tr>
<tr>
<td>87</td>
<td>Piedra Liza South</td>
<td>0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>179</td>
</tr>
<tr>
<td>97</td>
<td>-</td>
<td>&lt;0.25</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>181</td>
</tr>
<tr>
<td>95</td>
<td>-</td>
<td>0.25</td>
<td>?</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>182</td>
</tr>
<tr>
<td>93</td>
<td>-</td>
<td>0.25</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>183</td>
</tr>
<tr>
<td>91</td>
<td>-</td>
<td>0.75</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>183</td>
</tr>
<tr>
<td>96</td>
<td>Pichicato</td>
<td>0.75</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>184</td>
</tr>
<tr>
<td>94</td>
<td>-</td>
<td>2.00</td>
<td>x</td>
<td>?</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>186</td>
</tr>
<tr>
<td>92</td>
<td>-</td>
<td>1.75</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>187</td>
</tr>
<tr>
<td>84</td>
<td>Antivales</td>
<td>3.75*</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>189</td>
</tr>
<tr>
<td>86</td>
<td>Antivales</td>
<td>&lt;0.25*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>191</td>
</tr>
<tr>
<td>88</td>
<td>Antivales</td>
<td>&lt;0.25</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>192</td>
</tr>
<tr>
<td>90</td>
<td>Antivales</td>
<td>1.25</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>193</td>
</tr>
<tr>
<td>82</td>
<td>Antivales</td>
<td>&lt;0.25</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>194</td>
</tr>
<tr>
<td>106</td>
<td>Antivales</td>
<td>0.75</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>195</td>
</tr>
<tr>
<td>104</td>
<td>Santa Rosa</td>
<td>1.75*</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>197</td>
</tr>
<tr>
<td>108</td>
<td>Sierra Morena</td>
<td>9.00*</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>201</td>
</tr>
<tr>
<td>110</td>
<td>Chacralta</td>
<td>1.00*</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>205</td>
</tr>
<tr>
<td>112</td>
<td>-</td>
<td>0.50</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>207</td>
</tr>
<tr>
<td>113</td>
<td>Anchucaya</td>
<td>8.50*</td>
<td>?</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>207</td>
</tr>
</tbody>
</table>
### TABLE 1 (cont.)

#### B. South Bank (cont.)

<table>
<thead>
<tr>
<th>Site No</th>
<th>Name</th>
<th>Area ha</th>
<th>EH</th>
<th>EIP/MH</th>
<th>MH/LIP</th>
<th>LH</th>
<th>C</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>111</td>
<td>-</td>
<td>0.50</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>213</td>
</tr>
<tr>
<td>109</td>
<td>Vichuya</td>
<td>12.50*</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>?</td>
<td>-</td>
<td>215</td>
</tr>
<tr>
<td>125</td>
<td>-</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>218</td>
</tr>
<tr>
<td>127</td>
<td>-</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>219</td>
</tr>
<tr>
<td>129</td>
<td>-</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>220</td>
</tr>
<tr>
<td>131</td>
<td>-</td>
<td>&lt;0.25</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>221</td>
</tr>
<tr>
<td>133</td>
<td>Balconcillo de la Palma</td>
<td>3.00</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>221</td>
</tr>
<tr>
<td>166</td>
<td>Sisicaya South</td>
<td>0.25</td>
<td>-</td>
<td>?</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>224</td>
</tr>
<tr>
<td>168</td>
<td>Huarangal</td>
<td>0.50</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>225</td>
</tr>
<tr>
<td>353</td>
<td>Antapucro</td>
<td>1.50*</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>226</td>
</tr>
</tbody>
</table>

#### C. Sites Outside the Study Area

<table>
<thead>
<tr>
<th>Site No</th>
<th>Name</th>
<th>Area ha</th>
<th>EH</th>
<th>EIP/MH</th>
<th>MH/LIP</th>
<th>LH</th>
<th>C</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>-</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>142</td>
</tr>
<tr>
<td>46</td>
<td>-</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>142</td>
</tr>
<tr>
<td>47</td>
<td>-</td>
<td>1.00</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>142</td>
</tr>
<tr>
<td>48</td>
<td>-</td>
<td>&lt;0.25</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>142</td>
</tr>
<tr>
<td>175</td>
<td>Chuchsurco</td>
<td>0.50</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>228</td>
</tr>
<tr>
<td>177</td>
<td>Chuchsurco</td>
<td>2.25</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>229</td>
</tr>
<tr>
<td>343</td>
<td>-</td>
<td>9.00</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>230</td>
</tr>
</tbody>
</table>

#### Other Site Names – a Correlation of Bonavía's Site Names with the 1966 Survey Numbers

1. Pachacamac
2. Pampa de las Flores A
18) Pampa de las Flores B
19)
### TABLE 1 (cont.)

**Other Site Names (cont.)**

<table>
<thead>
<tr>
<th></th>
<th>Site Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Tambo Inga</td>
</tr>
<tr>
<td>16</td>
<td>Quebrada de las Golondrinas</td>
</tr>
<tr>
<td>43</td>
<td>Potrero de Santa Lucía</td>
</tr>
</tbody>
</table>

**Notes to Table 1:**

1. Sites are usually named according to the quebrada in which they are situated. A "-" sign means the site has no name.

2. The area is rounded to the nearest 0.25 ha, except that small sites of a few hundred square metres are classed as \(< 0.25 \text{ ha.}\) A "-" sign means there is not sufficient data to make an estimate.

3. An asterisk indicates that the whole or part of the site was mapped or measured.

4. The major period of occupation is underlined. Where this is not certain there is no underlining.

5. A question mark means a tentative placing in the period.

6. It should be pointed out that Nieve-Nieve is the name of a hamlet at the mouth of the Avíllay quebrada, as well as the name for site 136.

7. C = Colonial.
6. Glossary

Certain Spanish and Quechua terms are used in the present study with the meanings given below. Those terms not listed here will be found in the glossary of J. Alden Mason's "Ancient Civilisations of Peru" (1964). Further definition of Spanish terms on the maps is to be found in the section:- "Notes on the Maps and Charts" after the illustrations. Some other terms are explained in the text.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ají</td>
<td>Chile pepper, a variety of capsicum.</td>
</tr>
<tr>
<td>Bocatoma</td>
<td>The intake point of an irrigation ditch from the river.</td>
</tr>
<tr>
<td>Chacra</td>
<td>A field usually bounded by a stone wall or a natural fence of cacti or other plants.</td>
</tr>
<tr>
<td>Chala</td>
<td>A mass of maize stalks and leaves.</td>
</tr>
<tr>
<td>Chirimoya</td>
<td>An edible fruit.</td>
</tr>
<tr>
<td>Cumbi</td>
<td>A particularly fine cloth woven on a special loom.</td>
</tr>
<tr>
<td>Depósito</td>
<td>A storehouse.</td>
</tr>
<tr>
<td>Huaca</td>
<td>The physical manifestation of something sacred to the Indians, such as a stone, spring, mountain, ancient mound, mythical figure or dead ancestor. Such an object possesses a powerful force. The word can be used as a noun or an adjective.</td>
</tr>
<tr>
<td>Huayco</td>
<td>A flash flood during the rainy season.</td>
</tr>
<tr>
<td>Lúcuma</td>
<td>An edible fruit.</td>
</tr>
<tr>
<td>Mano</td>
<td>A rounded cobble used on top of a large flat stone for grinding.</td>
</tr>
<tr>
<td>Pacae</td>
<td>An edible fruit.</td>
</tr>
<tr>
<td>Pasto</td>
<td>A variety of grasses and bushes used as grazing land.</td>
</tr>
<tr>
<td>Pirca</td>
<td>Dry-walling of undressed stone.</td>
</tr>
<tr>
<td>Pueblo joven</td>
<td>A former squatters' settlement, now given legal status.</td>
</tr>
<tr>
<td>Quebrada</td>
<td>A dry lateral gorge that usually comes out into a major river valley, or else to the shore from the hills behind.</td>
</tr>
<tr>
<td>Quincha</td>
<td>Walls of cane and mud used for domestic structures.</td>
</tr>
<tr>
<td>Reducción</td>
<td>A newly created settlement for Indians, designed to concentrate them in one place, as far away as possible from their huacas.</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Tumi</td>
<td>A kind of knife, see fig. CV-a.</td>
</tr>
<tr>
<td>Visita</td>
<td>A study and census of a province, carried out by Spanish authorities in order to ascertain the number of Indians, the amount of lands they held and the amount of tribute they paid.</td>
</tr>
<tr>
<td>Yuca</td>
<td>Manioc, an edible root.</td>
</tr>
</tbody>
</table>
Notes to Chapter One

1. Uhle (1903, preface) lists all those who have written about, or worked at, Pachacamac up to the time of his writing. Any subsequent work is discussed in Appendix II of this thesis. With regard to archaeological work in the valley, Raimondi journeyed up it in 1862 and left notes on the geology, fauna, flora and some ruins (Raimondi 1945 edit., vol. 3). Uhle mentions that Wiener made a rough plan of some ruins near Manchay (Uhle 1903, p.5), and he himself was acquainted with some of the downvalley sites, such as La Centinela (site 199) and Huaycán (site 57). Villar Córdova mentions the valley, particularly the petroglyphs at site 177, (Villar Córdova 1935, pp.108, 178-179). Duccio Bonavía is the author of a study on six downvalley sites (Bonavía 1965) and he mentions other archaeologists who have worked at, or visited, the Early Horizon site of Mina Perdida, (site 117 on Patterson's map), although none of these has published any comment on their visits, with the exception of Trimborn (1972). The most recent worker in the valley is Alberto Bueno Mendoza, who has cleared part of the main patio group at site 57, sub-dividing it into 3 complexes, and has published a short article on the site (Bueno 1978a).

2. The ruins of Pachacamac, site 1, must be distinguished from the colonial settlement of Pachacamac, (Pachacamac pueblo), which is on the south side of the valley (see map G.M. 2).

3. See Stothert 1980 and her bibliography. The Tablada de Lurín sites have not been included on map G.M. 2.

4. These have been classified and described by Sandra Dickey, whose paper is in the possession of this author. Most fragments are from late periods.

5. See Appendix I for a further discussion of this point.

6. For example, the original surface collection of site 35 gave no indication of the Early Intermediate Period occupation of the site, although such sherds are on the surface. In all fairness to the team, however, they did manage to obtain generally representative samples, but more by luck than good management.

7. Scheele 1970; Earle 1969 and 1974; Patterson 1971a and l97lb; Patterson and Moseley 1968; MacNeish, Patterson and Browman 1975. All these authors use material from the project.

8. Such a situation has occurred in the Chillón, where Dillehay, in a 1977 article, refers to the site of Huancayo Alto as being occupied from the Early Intermediate Period onwards on the basis of his ceramic analysis. In a later article in 1979 he revised the estimate to include the Early Horizon, because the radiocarbon dates from his excavations were earlier than he expected.
9. For example, in his table 5, his section 1 corresponds to my Huaycán sector where there are three ditches not two, the longest of which is just over 3 kilometres, so that it is impossible for the ditches to have an average length of 9 kilometres. His section 2 corresponds to my Piedra Liza, Chontay and part of Sisicaya, in which there are approximately eleven short ditches, not five as stated in his table (Earle 1974, p.474).

10. In this thesis "late" is defined as post-Middle Horizon and "early" as pre-Middle Horizon.

11. I have, however, mapped two large structures at Pachacamac for comparative purposes. These are not included in this study. One of my plans is similar to that subsequently made by Sandra Negro, which has been published in Bueno 1978b, p.71.

12. See Rostworowski 1974; Dillehay 1977 and 1979; and Murra 1975, pp.59-115; for discussion on coca cultivation in this zone. Also see Chapter Six of this thesis.

13. Kroeber (1929,) was one of the first to draw attention to the importance of the two-way stimulus between coast and highlands.

14. Inhabitants of Sisicaya and Chontay were of the same ethnic group, and the curaca of Sisicaya was responsible for the maintenance of irrigation ditches in Chontay, as a statement from Guaman Poma shows (Guaman Poma 1966,vol.3 p.273).See also Rostworowski 1978, pp.112-115.

15. Plans of two complexes at site 57 have been published in Bueno 1978a, but the lettering is not clear.

16. Site 86 at Antivales was originally made at a scale of 1:500 but enlarged to 1:100.

17. See for example, Willey 1953, pp.2-4.

18. The older map, for example, shows Anchicocha, a place mentioned in Dioses y Hombres de Huarochirí, a book of sixteenth century legends. (Avila 1966). The recent map omits the name.

19. Arenas and La Rosa 1973, pp.1-6. They deal in detail with the major ditches from the village of Chontay to the shore, but merely list the names of upvalley ditches from Antioquia to Chontay.
CHAPTER TWO

THE SETTING

The purpose of this chapter is threefold:- A) to describe the natural setting of the study area, known ecologically as the Chaupi Yunga;¹ B) to evaluate the way in which environmental factors have influenced settlement and population; and C) to discuss the resources available to the inhabitants. Task A) is deemed necessary because concrete data on these zones are not readily accessible,² and the zones themselves are not as uniform as some generalisations would imply. With regard to B), it will be seen that settlement is linear, as might be expected along a narrow river valley with no active tributaries (G.M. 3). Furthermore, various factors have combined to restrict the amount of land available for cultivation. Since this is limited, the former inhabitants have avoided the valley floor and settled on the hill slopes and around the alluvial fans of lateral quebradas (G.M. 4-7). With regard to C), the discussion shows that although the resources are varied, they are not sufficient to support permanent, non-agricultural populations. However, they provided the raw materials for tools and shelter and useful supplements to a diet based on agricultural produce. Any basic need not supplied by the study area was normally only a day's journey away.

I The Physical Environment.

The factors that have restricted the amount of cultivable land are:-
1. The general relief of the zone, in particular the boxed-in nature of the terrain and the steep gradient of the valley floor and hill slopes.

2. The river, which does not always provide sufficient water for irrigation.

3. The arid climate, which does not allow dry farming.

On the other hand, the soils might be considered a more favourable factor, for although their quality is poorer than those downvalley, they give reasonable yields under irrigation. The climate also has a positive effect, - it is benign and therefore a wide variety of crops can be cultivated. These positive and negative factors are considered in turn in the following discussion.

1. The Relief

The present relief of the study area was formed during the late Tertiary and the Pleistocene. It comprises steep, jagged hills that border the river valley, sometimes boxing it in as at Piedra Liza, and at others standing back so as to allow small pockets of valley floor 1 km across, (fig. CIX). These are noticeable at Huaycán and Chontay (G.M. 3 and 9). The peaks themselves lie 1000 m or more above the river (fig. CIX), and their scree-covered slopes, 20 to 30 degrees from the vertical, are scored by old water channels that are now dry. The line of hills on both sides of the river is intersected at intervals by quebradas, which usually meet the main river valley at right angles. At their mouths there is a wide alluvial fan cut by an old water channel along which water rarely flows. These fans have been cut by the river to form hanging valleys, with almost sheer drops of 10 m or more to the valley floor. They are known locally as
balconcillos. Some of the quebradas provide access to other river valleys (G.M. 1 and 2). For example, Yanacoto, Nieve-Nieve and Chaimayanca on the north bank can be used to cross to the Rimac. Tinajas on the south bank leads to the Chilca quebrada.

This relief has been dead since the Holocene, with little erosion or deposition taking place in the mid-valley (Dollfus, 1965, pp.251-252). These processes only occur during infrequent years of heavy rains in the highlands, when debris from huaycos and landslides swells the main river. Normally the winds are too weak to have any erosive effect, and the river too strong, when in full spate, to deposit any material in the study area. All this is important from an archaeological point of view, since the material results of pre-Columbian activities are still visible on the surface.

Given these facts, one would expect to find human settlement on the edge of the valley floor, close to the cultivated area and out of the potential path of any huayco. Such a location would allow for ease of communications. However, in the past the need to cultivate every available scrap of land has forced settlement onto the lower and even the upper hill slopes. The maps (G.M. 3-7; S.M. 1-24) show that during the early prehistoric periods, when irrigation ditches were longer and higher up than they are now, the upper hill slopes and hill tops were settled. In later periods we find habitation spread out on the lower slopes and over quebrada fans, but still above the irrigation ditch. By the LH we find that domestic habitation had expanded well back into the quebradas in Sisicaya, necessitating a longer walk to the fields. Thus an inconvenient location on a steep gradient was always preferable to settlement on cultivable land. In a different way, the relief also explains the lack of LH sites on the north bank, since from San Isidro
to Molle there are no quebradas with a wide, flat alluvial fan at their mouths. 6

2. The River

As will be seen in the next section, the arid climate does not permit dry farming. Consequently, all cultivation must be carried out with water from the river. Unfortunately, the Lurín does not carry as much water as other central coast rivers, since its headwaters do not go back to the continental divide, as do those of the Rimac, Mala and Chancay. Neither is it fed by numerous highland lakes. 7 The Lurín proper is 70 kms long 8 and begins at the village of Cruz de Laya, at the confluence of the río de Langa and the río Lurín (G.M. 2). The latter derives from the springs and melting snows of the peaks behind San Damián. The former has its source in small lakes to the northwest of Huarochirí. Map G.M. 1 shows that the headwaters are only just in the zone of permanent seasonal rainfall, and the tributaries are small in comparison with those of the other rivers mentioned above.

These facts are reflected in the annual run-off of the Lurín, compared with other central coast rivers. Table 2 presents data for all of them and shows that there are marked differences.
# TABLE 2

**ANNUAL RUN-OFF CENTRAL COAST RIVERS**

<table>
<thead>
<tr>
<th>River</th>
<th>Area of basin in km²</th>
<th>Period over which data collected</th>
<th>Annual Run-off in millions of m³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>max.</td>
<td>aver.</td>
<td>min.</td>
</tr>
<tr>
<td>Chancay</td>
<td>3126</td>
<td>465</td>
<td>138</td>
</tr>
<tr>
<td>Chillón</td>
<td>2280</td>
<td>286</td>
<td>142</td>
</tr>
<tr>
<td>Rimac</td>
<td>3389</td>
<td>906</td>
<td>570</td>
</tr>
<tr>
<td>Lurín</td>
<td>1600</td>
<td>141</td>
<td>26</td>
</tr>
<tr>
<td>Mala</td>
<td>2182</td>
<td>538</td>
<td>193</td>
</tr>
<tr>
<td>Cañete</td>
<td>7077</td>
<td>1608</td>
<td>850</td>
</tr>
</tbody>
</table>

**Notes:**

This table is taken from Peñaherrera del Aguila, 1969, p.127

The Chilca and Omas valleys have been omitted because they are usually dry.

The above table shows that the Lurín has the least amount of water of all these rivers. Not only is its average annual run-off half that of the Chillón, whose basin is only a third as large, but its maximum is less than the Chillón's average. Moreover, not only does its run-off fluctuate from year to year, but within years, as Table 3 shows. In periods of full spate its run-off is comparable with that of other rivers, but in winter (the dry season) it is usually measured as nil.
TABLE 3

THE MONTHLY RUN-OFF OF THE LURIN IN m³

<table>
<thead>
<tr>
<th>Month</th>
<th>1972</th>
<th>1973</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>21,723,379</td>
<td>40,928,889</td>
</tr>
<tr>
<td>February</td>
<td>41,668,992</td>
<td>33,251,299</td>
</tr>
<tr>
<td>March</td>
<td>101,471,270</td>
<td>70,859,405</td>
</tr>
<tr>
<td>April</td>
<td>28,618,877</td>
<td>47,612,880</td>
</tr>
<tr>
<td>May</td>
<td>3,154,637</td>
<td>12,679,805</td>
</tr>
<tr>
<td>June</td>
<td>1,378,080</td>
<td>5,774,285</td>
</tr>
<tr>
<td>July</td>
<td>1,644,106</td>
<td>4,377,971</td>
</tr>
<tr>
<td>August</td>
<td>998,006</td>
<td>3,939,667</td>
</tr>
<tr>
<td>September</td>
<td>678,872</td>
<td>1,963,181</td>
</tr>
<tr>
<td>October</td>
<td>1,645,315</td>
<td>not available</td>
</tr>
<tr>
<td>November</td>
<td>1,044,576</td>
<td>&quot; &quot;</td>
</tr>
<tr>
<td>December</td>
<td>27,988,502</td>
<td>&quot; &quot;</td>
</tr>
</tbody>
</table>

Notes:
This table is taken from Arenas and La Rosa, 1973, Cuadro 3

It will be seen that the range of variation for 1972 is greater than that for 1973, but the latter year has the greater total run-off for the first nine months: 223,287,382 m³ against 201,336,019 m³. These were better than average years, as comparison with the figures in table 2 will show. However, in 1958 and 1960, the annual run-off was only 72.8 and 91 millions of m³ respectively, less than half of the previous figures and well below the average. All this means that in some months water can be in excess of anticipated requirements and wasted, whereas in others it may be less than expected or needed. Consequently,
with such fluctuations in run-off and a basin half the size of the Rimac's, but receiving only one sixth of its water, it is not surprising that the Lurín is considered a second-class river (Peñaherrera del Aguila 1969, p.104).

If we examine the amount of land available for cultivation, we find that the Lurín drains an area 3225 km$^2$, of which 13,613 ha are cultivable (Arenas and La Rosa 1973, p.2). However, only 9172 ha of these are currently under irrigation. The remaining 4400 ha are cultivated on a temporary basis, either through dry farming, which indicates they are highland areas within the rain belt, or through occasional irrigation. Even so, by far the greater amount of cultivable land (some 6200 ha) lies between Cieneguilla and the shore. It can only be as intensively farmed as it is today by using puquios and boring wells. In the study area, with its steeper gradient of 33 m for every kilometre travelled (fig. CIX), puquios cannot occur and all water for irrigation and domestic purposes must come from the river. The steep gradient and narrow valley floor also limit the number of bocatomas, and ditches tend to be short because there is not enough water for them to irrigate a greater amount of land. An instructive example is the San Francisco Ditch (no. IX on G.M. 9), which can only be used for half of its original extent because of the lack of water.

3. The Climate

The salient feature of the climate is the lack of rainfall, which not only prevents dry-farming, but also affects the quality of the soils and the amount of water in the river. There is a small amount of precipitation which supports xerophytic vegetation on the hill slopes, but such vegetation is too sparse to provide good humus. There are, however,
the benefits of year-round sunshine and warmth, which allow a variety of crops to be grown. In contrast to other areas of Peru, they allow domestic activities to take place out of doors all year. This fact is important archaeologically, because it implies that activities such as food preparation, cooking, weaving and tool manufacture need not all be concentrated in one small area, as is often expected.

According to recent maps, the study area falls into two climatic divisions:— a Koppen BSw, a desert with a little precipitation in summer; and a BW, a desert with scarcely any precipitation (Perú: Atlas, pp.138-139). Personal observation confirms this division, although the dividing line is hard to pinpoint. It probably occurs around Piedra Liza. Although the differences do not affect the natural vegetation too much, except for the presence or absence of cacti on the slopes, they may have affected crops in the past.

The following sections summarise the most important features of the climate and demonstrate the warmth and general aridity of the area.

a) **Temperature**

This has to be estimated from data gathered in other areas. Table 4 shows the average annual temperatures for stations close to the coast.
### TABLE 4

**TEMPERATURES AT SELECTED CENTRAL COAST STATIONS**

<table>
<thead>
<tr>
<th>Place</th>
<th>Lima Campo de Marte</th>
<th>La Molina</th>
<th>Manchay</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Altitude in m.</strong></td>
<td>137</td>
<td>251</td>
<td>184</td>
</tr>
<tr>
<td><strong>Distance inland in km</strong></td>
<td>6</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td><strong>Average annual temperature °C</strong></td>
<td>18.2</td>
<td>18.3</td>
<td>19.4</td>
</tr>
<tr>
<td><strong>Average maximum °C</strong></td>
<td>22.2</td>
<td>24.1</td>
<td>23.1</td>
</tr>
<tr>
<td><strong>Average minimum °C</strong></td>
<td>16.0</td>
<td>14.4</td>
<td>16.1</td>
</tr>
</tbody>
</table>

**Notes:**

Data are taken from different sources. For Lima and La Molina I have used the Anuario Estadístico del Perú, 1969 and the data cover a thirty-year period from 1930 to 1960. For Manchay I have used Arenas and La Rosa, 1973, cuadro 1. The data cover a six-year period between 1965 and 1971.

It can be seen that there is no more than one degree of difference between the average annual temperatures at each station. However the range between maximum and minimum temperatures varies from 6 to 10 degrees and is due to altitude, distance inland and the amount of garúa¹⁴ the stations receive. These three factors also influence the temperature of the study area.

In order to obtain some idea of temperatures there, one must use the Manchay data as a basis for calculations. Considering the fact that the temperature of the western slopes drops one degree for every 200 m
ascended (Perú: Atlas, p.126), one would expect that the average annual temperatures would be as follows: 18 degrees for Huaycán at 400 m, 17 degrees for Chontay at 600 m, and 16 degrees for Sisicaya at 900 m. In practice this is not so, because the disadvantage of altitude is offset by the lesser effect of the garúa and the consequent increase in sunshine. Therefore the annual average temperature for most of the study area is likely to be around 19 degrees. Furthermore, my own experience suggests that there is less variation between maximum and minimum temperatures in the study area than there is at Lima and La Molina. At night the temperature may drop by 4 or 5 degrees, but it does not go below freezing and crops are in no danger (Dollfus, 1965, p.262). This is vital if plants like coca were cultivated in the zone, because they require constant temperatures without brusque changes (Rostworowski 1977, p.167). Such temperatures also allow many coastal fruit trees, such as avocados, guavas and chirimoyos to be grown as far as Cruz de Laya, at 1800 m above sea level (Raimondi 1945, p.15).

b) Precipitation

There are no pluviometric stations in the study area and data have to be extrapolated from stations close by. Table 5 shows the precipitation at both downvalley and upvalley stations.
TABLE 5

PRECIPITATION IN mm AT SELECTED STATIONS IN THE DEPARTMENT OF LIMA

<table>
<thead>
<tr>
<th>Station</th>
<th>Lima</th>
<th>La Molina</th>
<th>Manchay</th>
<th>Antioquia</th>
<th>Tuna</th>
<th>Escomarca</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance inland kms</td>
<td>6</td>
<td>16</td>
<td>16</td>
<td>65</td>
<td>66</td>
<td>80</td>
</tr>
<tr>
<td>Altitude m</td>
<td>137</td>
<td>251</td>
<td>184</td>
<td>1839</td>
<td>2921</td>
<td>3600</td>
</tr>
<tr>
<td></td>
<td>6.8</td>
<td>2.9</td>
<td>5.5</td>
<td>38.6</td>
<td>105</td>
<td>148.9</td>
</tr>
<tr>
<td></td>
<td>0.3</td>
<td>0.5</td>
<td>0.1</td>
<td>0</td>
<td>0</td>
<td>1.1</td>
</tr>
<tr>
<td>Average annual precipitation</td>
<td>31.9</td>
<td>18.9</td>
<td>27.6</td>
<td>95.4</td>
<td>164.8</td>
<td>541.8</td>
</tr>
</tbody>
</table>

Notes:

Figures for Lima and La Molina are taken from the Anuario Estadístico del Perú for 1969 and cover a thirty-year period. The figures for the other stations come from Arenas and La Rosa's study and cover varying four to six-year periods, usually between 1965 and 1972.

It will be readily appreciated that stations downvalley receive less precipitation than those upvalley. The reason for this is that, as one leaves the coast, there is a change in the precipitation pattern, from winter rain to summer rain. The study area is in fact a buffer area where both patterns fade out, so that certain sectors, such as Piedra Liza, do not receive the minimum for either pattern. During the winter months the bed of stratus that causes the garúa moves upvalley from the coast towards the end of the day. It remains in and beyond the study area until the next morning, when it shifts back downvalley. During May and June it may stay all day at Huaycán, although it has usually cleared by noon. At Chontay it has usually cleared by 11.00 am.
and at Sisicaya between 9.00 and 10.00 am. The table shows the gradual decrease in annual precipitation between Lima and Manchay. There should be a further decrease at the altitude of Huaycán, which makes this sector more arid than the shore, for there is not enough humidity to support *lomas* vegetation on the hills. Neither are there cacti on the slopes above the irrigation ditches.

The upvalley sectors of Chontay and Sisicaya receive a small amount of precipitation, probably from 90 to 100 mm a year, because they are on the lower slopes of the western Andes at the edge of the highland rainfall belt. Table 5 also shows the gradual decrease between Escomarca in the highlands and Antioquia in the valley, as well as the fact that neither the latter or Tuna have any precipitation in the winter months. The limit for summer showers appears to be Chontay. 100 mm is insufficient for any kind of dry farming, which only becomes feasible when one reaches Escomarca (G.M. 2). Nevertheless, the precipitation from rainfall in upvalley sectors is still three times the amount that Huaycán receives from *garúa*.

c) **Sunshine**

This feature is mentioned because there are probably more hours of sunshine in the study area than in the adjacent coast and highlands. In Lima the total number of hours of sunshine per annum is 1456, the sunniest month being March with an average of 7 hours of sunshine, and the least sunny August, with a daily average of .9 hours (Anuario Estadístico del Perú, p.195). As the precipitation from *garúa* decreases when one moves away from the coast, so does the sunshine increase. Thus at La Molina, 16 kms inland, the total number of hours of sunshine is 1709, and at Manchay it is 1797. The difference between these stations and Lima lies in the winter months, when Manchay receives
almost twice the amount of sun that Lima does, because it has less garúa. Consequently the study area probably receives well over 2000 hours per annum, a daily average of from 5 to 7 hours.\textsuperscript{16}

To summarise the effects of relief, climate and water supply on agriculture:– The relief will determine the number of bocatamas, where these are placed, the height to which a ditch can be brought and its length. However, a ditch is useless unless it is assured of sufficient water during the growing season, a fact that requires co-operation along the length of the valley.\textsuperscript{17} If the water supply fluctuates, dependent as it is upon rainfall in the highlands, there will be a marginal area of cultivable land on the upper slopes. This may be cultivated in years of abundant highland rainfall, if and when these can be predicted. All these factors limit the amount of land permanently under cultivation and ultimately affect the carrying capacity of the area. It will be seen in Chapter Six that the archaeological record does not suggest that there were huge populations exceeding carrying capacity. If this were the case, food would have had to be imported or exacted as tribute, something not borne out by ethnohistorical evidence (e.g. Cieza 1947, pp.421-422). It is therefore fairly certain that the inhabitants were always subsistence farmers, whose numbers were limited by the amount of food they could grow.

4. Soils

Those in the study area are usually classified as lithosols that are immature, saline and alkaline, with little capacity for water retention (Peñaherrera del Aguila, op. cit., pp.244-246). In fact, there is probably some variation within the study area, which affects what crops are grown where. This variation can be best understood
by examining Arenas and La Rosa's classification for downvalley
(1973, p.17-19). Three of their six classes are applicable to the study area:

Class II soils are found on the flat valley floor and are light-textured and fairly well drained, though slightly saline. Class III soils include the slightly sloping part of the valley floor, further away from the river, but not on the hill slopes. These have less depth than class II. Class IV refers to soils on steep valley slopes. These are saline, poorly drained and contain numerous gravels and pebbles.

If one applies this classification to the study area, it is evident that most soils will belong to classes III and IV, with possibly some class II around Huaycán. Those on the upper slopes, which are only cultivated temporarily, are class IV. These could well include the pre-Columbian terraces at San José (S.P. 7A and 7B). My cursory inspection showed a gravelly covering, although it is possible that better soils were brought up as fill.

In spite of the less promising nature of classes III and IV, it is obvious from historical and modern records that, where they can be irrigated, a variety of crops can be grown (Raimondi 1945, pp.13-15). Therefore their immaturity and salinity is not too much of a disadvantage with proper care. Personal observation suggests that although fallow is not practised, the rotation of crops is carried out on both richer and poorer soils. At the same time it is likely that the quality of the poorer soils prevented double-cropping of plants like maize.

At the same time the distinction between classes III and IV may have affected cultivation in the past. Certainly today it is noticeable that maize and vegetables are grown in the Huaycán sector, which has long
been under continuous cultivation as part of the Cieneguilla hacienda. The same is true of the lands on the south bank at Chontay. However, on the north bank of Chontay and further upvalley the land is devoted to fruit trees, mainly apples, avocado and quince, because these will flourish on the poorer soils and require less water than maize. Ethnohistorical evidence from the Chillón corroborates the fact that land used for coca and fruit trees was no good for maize. Therefore it is likely that crops were divided in this way in the past, with coca trees upvalley and maize, beans and cotton downvalley. It may be difficult to confirm this archaeologically but, as will be seen in Chapter Six, highland people conquered the study area as far as Huaycán in the late periods. The fact that they went no further downvalley may indicate that their main interest was to take possession of coca lands.

II. Resources

An examination of the resources of the study area shows that good use was made of the available rocks and minerals. Wild fauna and flora are also reasonably abundant in spite of the general aridity. Tables 6 and 7 show that these had uses beyond their limited food value. The most striking feature of the study area is its lack of pottery clays. Certain luxury items such as precious metals and spondylus shell also had to be obtained from elsewhere. The following lists and tables show how each resource was used.
1. **Minerals and Rocks**

   a) **Tonalite/Granodiorite**
   
   This is the principal rock in the mid-valley. It was used for building stone in all prehistoric periods. Sometimes suitable outcrops were quarried, but angular chunks from scree and river cobbles were also utilised. Although it fractures easily, it was used for both chipped and ground stone tools. There is an unusual notched tool (fig. CI f) from site 104, pecked and ground mortars (not illustrated), and stone rings or clubs (fig. CI b). Large boulders in suitable locations were used as grinding stones, and smooth cobbles from the river as manos or rocker mills.

   b) **Andesite/Volcanic Ash**
   
   These come from veins in the granodiorite and are also found as river cobbles. They were used as building stone and for crudely-chipped, multi-purpose tools (fig. CI c, d).

   c) **Quartz and Chert**
   
   The former comes from veins in the granodiorite and the latter from outcrops on the coast. They were used for better quality tools:—knives, scrapers and projectile points (figs. C j, k; CI e). There is also a chert bead (fig. CI h).

   d) **Rhyolite**
   
   This is usually found near the river in the form of water-born boulders and cobbles. It was used for building stone and for mortars, the best example of which comes from the paved hill-top courtyard of site 164.
e) **Ignimbrite**

This is also found as water-born cobbles near the river. It is used for a variety of ground stone tools (figs. C l; CI a).

f) **Haematite**

This comes from the Huaycán sector. It was used as a pigment for wall plaster and for pottery. The brush in fig. CII d has red pigment on its bristles and the fox-fur pouch (Chart IV) also contained red pigment.

g) **Copper**

Copper artefacts are found at several sites (Chart IV). They consist of needles, bodkins, **tupus**, **tumis**, pins and spatulas (figs. CIV c - h; CV a - d). The copper could well have been mined in the study area, since in the hills behind site 164 is an old copper mine that is occasionally worked today. There are also mines at Huarochirí (Perú: Atlas, p.215).

Minerals unobtainable in the study area are gold, silver, turquoise and salt. Turquoise beads are found in surface collections (fig. CI j, k), and there is historical evidence for the presence of gold and silver objects although these are not present in the archaeological record. All are likely to have come from the nearby highlands, although there may have been local sources of gold at Chontay and Antioquia (Raimondi 1945, p.15; Paz Soldán 1877, p.316). Although salt does not appear in the archaeological record, there is ethno-historical evidence for its importance in the local culture (Avila 1966, p.264). It must have been obtained from the coast (Horkheimer 1973, p.109).
The lack of suitable pottery clays was more serious.\textsuperscript{23} Possible sources are the highlands between Chorrillos and Olleros, which is a modern pottery-manufacturing village, or near Langa.

Mechanisms for acquiring these resources are discussed in Chapter Six. Since they were lacking, the inhabitants of the study area may have needed an item to be given in exchange, which emphasises their advantage in being able to cultivate coca.\textsuperscript{24}

2. Flora

Table 6 lists some of the wild plants found in the study area and their uses. It can be seen that they were mostly used for building materials, tools and medicines. Only a few, such as the cacti, had any food value and this must have been very limited. Therefore it is unlikely that wild plant foods could have supported permanent pre-agricultural populations, even when combined with the faunal resources and the wild ancestors of modern cultigens.

The plants are found in three vegetation zones:- the monte or riverine brushwood, which is the natural vegetation of the area, the cultivated fields and the hill slopes above the irrigation ditches.\textsuperscript{25} One should not underestimate the ecological importance of the first zone, whose extent has been much reduced since the sixteenth century,\textsuperscript{26} because it not only provided building materials and firewood, but also harboured the fauna hunted for food, skins and feathers. Consequently, the inhabitants are likely to have allowed more monte than is seen today. Although imported eucalyptus and casuarina pines now shade irrigation ditches, the pacae, chirimoyo and guava, all cultivated trees, would have done this in the past, providing fruit as well.
TABLE 6

NATIVE FLORA OF THE LURIN VALLEY

I. Wild Plants identified by Antonio Raimondi on his 1862 journey

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Spanish/Quechua Name</th>
<th>Use</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baccharis sp.</td>
<td>Chilco</td>
<td>Spindles, (fig.CIVb)</td>
<td>Y &amp; H, p.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Basketry, Dye, Llipta.</td>
<td>Towle, p.95, Soukup, p.36</td>
</tr>
<tr>
<td>Gynerium sagittatum</td>
<td>Caña Brava</td>
<td>Spear shafts, Pennant poles, Walls, Roofs, Basketry, Mats, (fig.CIVg)</td>
<td>Towle, p.18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Y &amp; H, p.263, Soukup, p.146</td>
</tr>
<tr>
<td>Equisetum giganteum</td>
<td>Cola de caballo, Tembladera</td>
<td>Medicinal.</td>
<td>Soukup, p.125, Y &amp; H, p.36</td>
</tr>
<tr>
<td>Schinus molle</td>
<td>Molle</td>
<td>Chicha, Firewood, Fertiliser,</td>
<td>Y &amp; H, p.33, Soukup, p.308</td>
</tr>
<tr>
<td>Acacia macracantha</td>
<td>Huarango</td>
<td>Roofing, Firewood.</td>
<td>Towle, p.42</td>
</tr>
<tr>
<td>Caesalpinia tinctoria</td>
<td>Taro</td>
<td>Tanning, Dye, Medicinal.</td>
<td>Towle, p.44, Y &amp; H, p.58, Soukup, p.54</td>
</tr>
<tr>
<td>Cordia rotundifolia</td>
<td>Membrillejo</td>
<td>Medicinal.</td>
<td>Soukup, p.95</td>
</tr>
<tr>
<td>Rapanea? sp.</td>
<td>Manglillo</td>
<td>Firewood.</td>
<td>Raimondi, p.10</td>
</tr>
<tr>
<td>Tessaria integrifolia</td>
<td>Pajarobobo</td>
<td>Firewood.</td>
<td>Y &amp; H, p.79</td>
</tr>
</tbody>
</table>
### TABLE 6 (cont.)

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Spanish/Quechua Name</th>
<th>Use</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Alnus orullensis</em></td>
<td>Aliso</td>
<td>Beams, Dyes, Medicinal.</td>
<td>Y &amp; H, p.295, Soukup, p.16</td>
</tr>
<tr>
<td><em>Cassia sp.</em></td>
<td>Alcaparillo</td>
<td>Condiment.</td>
<td>Soukup, pp.67-68</td>
</tr>
<tr>
<td><em>Cereus peruvianus</em></td>
<td>Gigantón</td>
<td>Edible fruit, Needles (fig. CIIIb)</td>
<td>Towle, p.69</td>
</tr>
<tr>
<td><em>Tillandsia sp.</em></td>
<td>Cardón de lomas</td>
<td>Combustible, Pasture, Mummy bundles.</td>
<td>Towle, p.31, Y &amp; H, p.73</td>
</tr>
<tr>
<td><em>Passiflora ligularis</em></td>
<td>Granadilla</td>
<td>Edible.</td>
<td>Towle, p.68, Y &amp; H, pp.32-33</td>
</tr>
<tr>
<td><em>Melocactus sp.</em></td>
<td>Pumapa rurun?</td>
<td>Edible fruit.</td>
<td>Pulgar, p.70</td>
</tr>
<tr>
<td><em>Cactus lanatus</em></td>
<td>Chuná</td>
<td>Fibres for Stuffing.</td>
<td>Pulgar, p.69</td>
</tr>
</tbody>
</table>

**II. Other Wild Plants of Pre-Columbian Origin**

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Spanish/Quechua Name</th>
<th>Use</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Furcraea sp.</em></td>
<td>Penca</td>
<td>Fibres for Slings, Ropes, Sandals. (fig. CVIf)</td>
<td>Towle, pp.32-33, Y &amp; H, p.268</td>
</tr>
<tr>
<td><em>Campomanesia lineatifolia</em></td>
<td>Palillo</td>
<td>Edible fruit.</td>
<td>Towle, p.72</td>
</tr>
<tr>
<td><em>Sapindus saponaria</em></td>
<td>Boliche</td>
<td>Soap, Beads.</td>
<td>Towle, p.62, Y &amp; H, p.46</td>
</tr>
<tr>
<td><em>Phragmites communis</em></td>
<td>Carrizo</td>
<td>Mats, Roofing, Basketry, Tubes, Combs. (fig. CIIIId,e)</td>
<td>Towle, p.19, Y &amp; H, p.264</td>
</tr>
</tbody>
</table>
### TABLE 6 (cont.)

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Spanish/Quechua Name</th>
<th>Use</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typha angustifolia</td>
<td>Totora</td>
<td>Mats, Cordage, Rope, Basketry, Rafts.</td>
<td>Towle, p.16</td>
</tr>
<tr>
<td>Cyperus sp.</td>
<td>Junco</td>
<td>Cordage</td>
<td>Towle, pp.25–26</td>
</tr>
<tr>
<td>Guadua angustifolia</td>
<td>Caña de Guayaquil</td>
<td>Roofing, Rafts.</td>
<td>Towle, pp.17–18</td>
</tr>
<tr>
<td>&lt;?*</td>
<td>Jabón del Monte</td>
<td>Soap</td>
<td>Refuse at Avillay</td>
</tr>
<tr>
<td>Plantago sp.</td>
<td>Llantén</td>
<td>Medicine.</td>
<td>Y &amp; H, p.281</td>
</tr>
<tr>
<td>Amarantus sp?</td>
<td>Yuyo</td>
<td>Condiment</td>
<td>Y &amp; H, p.85</td>
</tr>
<tr>
<td>Oenothera sp.</td>
<td>Chupa-sangre</td>
<td>Medicine.</td>
<td>Y &amp; H, p.68</td>
</tr>
<tr>
<td>Psoralea sp.</td>
<td>Culen</td>
<td>Medicine, Dye.</td>
<td>Y &amp; H, p.87</td>
</tr>
<tr>
<td>Mimulus</td>
<td>Berro</td>
<td>Edible, Medicine.</td>
<td>Y &amp; H, p.300</td>
</tr>
<tr>
<td>Andiantum sp.</td>
<td>Culantrillo</td>
<td>Medicine.</td>
<td>Y &amp; H, p.70</td>
</tr>
<tr>
<td>Chenopodium ambrosioides</td>
<td>Paico</td>
<td>Condiment</td>
<td>Y &amp; H, p.39</td>
</tr>
<tr>
<td>Opuntia sp.</td>
<td>Tuna</td>
<td>Edible fruit, Dye from Cochineal insect.</td>
<td>Y &amp; H, p.317, Towle, p.71</td>
</tr>
</tbody>
</table>

* I have not yet been able to identify the botanical name for this plant.

**Notes:**

All these plants are growing in the valley now. The smaller ones in section II were identified for me by Francisco Flores Vargas. The cultivated plants are listed in Tables 41 and 42 of Appendix II and have not been repeated here. However, two pre-Columbian cultigens not found in my excavations are still grown in the valley today.
It is likely that they were grown here before the Spanish conquest. These are the *pepino* (*Solanum muricatum*) and the *caigua* (*Cyclanthera pedata*).

References:

Towle, 1961; Yaclovleff and Herrera, 1933; Soukup, 1970; Pulgar Vidal, 1967. Most are also mentioned in Weberbauer, 1936.

3. Fauna

See Table 7
### TABLE 7

**FAUNA OF THE STUDY AREA**

<table>
<thead>
<tr>
<th>Spanish/Quechua Name (English)</th>
<th>Genus</th>
<th>Food</th>
<th>Non-Food</th>
<th>Other Uses</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. WILD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish and Crustaceans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pampano (Sprat)</td>
<td>?</td>
<td>x</td>
<td></td>
<td>-</td>
<td>personal observation.</td>
</tr>
<tr>
<td>Pejerrey (Sprat)</td>
<td>?</td>
<td>x</td>
<td></td>
<td>-</td>
<td>&quot;</td>
</tr>
<tr>
<td>Trucha (Trout)</td>
<td>?</td>
<td>x</td>
<td>-</td>
<td></td>
<td>&quot;</td>
</tr>
<tr>
<td>Camarón del río (Crayfish)</td>
<td>Macrobrachium sp.</td>
<td>x</td>
<td></td>
<td>-</td>
<td>Espinoza p.63</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cuculi (Dove)</td>
<td>Zenaida asiatica meloda</td>
<td>x</td>
<td></td>
<td>-</td>
<td>Koepcke p.63</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Horkheimer p.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Espinoza p.63</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Guamán Poma p.145</td>
</tr>
<tr>
<td>Perico (Parrot)</td>
<td>Psilopsiagon a. aurifrons</td>
<td>x</td>
<td>Feather cumbi pet</td>
<td>Koepcke p.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Squier p.216</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Avila p.69, 145</td>
</tr>
</tbody>
</table>
### TABLE 7 (cont.)

<table>
<thead>
<tr>
<th>Spanish/Quechua Name (English)</th>
<th>Genus</th>
<th>Food</th>
<th>Non-Food</th>
<th>Other Uses</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Birds (cont.)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Halcón/Guaman (Falcon)</td>
<td>Falco</td>
<td>x</td>
<td></td>
<td>Ceremonial head-dress</td>
<td>Avila p.258</td>
</tr>
<tr>
<td>Picaflor/Quenti (Humming Bird)</td>
<td>Trochilidae</td>
<td>?</td>
<td>x</td>
<td>Feather cumbi</td>
<td>Guamán Poma p.145 Koepcke pp.71-74</td>
</tr>
<tr>
<td><strong>Mammals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ciervo/Taruga (Deer)*</td>
<td>Cervidae</td>
<td>x</td>
<td>x</td>
<td>Horns used as wall pegs</td>
<td>Bonavía p.56</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ceremonial head-dress?</td>
<td>Avila p.43, 187-189</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Curing</td>
<td>Gilmore p.383</td>
</tr>
<tr>
<td>Guanaco*</td>
<td>Llama glama guanicoe</td>
<td>x</td>
<td>x</td>
<td>Wall pegs</td>
<td>Gilmore p.429-454</td>
</tr>
<tr>
<td>Zorro (Fox)</td>
<td>Dusicyon sp?</td>
<td>x</td>
<td></td>
<td>Fur pouch</td>
<td>Panquimla excavations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ceremonial head-dress</td>
<td>Avila p.258</td>
</tr>
<tr>
<td>Puma*</td>
<td>Felis concolor</td>
<td>x</td>
<td></td>
<td>Ceremonial head-dress</td>
<td>Avila p.258</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Araña domestica (Spider)</td>
<td>Loxo scelles laeta</td>
<td>x</td>
<td></td>
<td>Divination</td>
<td>Avila p.159 Polo p.31-32</td>
</tr>
</tbody>
</table>
### TABLE 7 (cont.)

<table>
<thead>
<tr>
<th>Spanish/Quechua Name (English)</th>
<th>Genus</th>
<th>Food</th>
<th>Non-Food</th>
<th>Other Uses</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. DOMESTIC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cuy (Guinea Pig)</td>
<td>Cavia porcellus</td>
<td>x</td>
<td>x</td>
<td>Divination, Sacrificial offering</td>
<td>Gilmore p.454-460</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Transport, Wool, Dung, Fuel, Shoes, Thongs, Sacrifice, Wall pegs. (fig. CVIa, b)</td>
<td>Avila p.167, 257</td>
</tr>
<tr>
<td>Llama</td>
<td>Llama glama</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Horkheimer p.59</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Avila p.61, 67, 128</td>
</tr>
<tr>
<td>Perro (Dog)</td>
<td>Canis familiaris</td>
<td>x</td>
<td></td>
<td>Pet</td>
<td>Avila p.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Horkheimer p.57</td>
</tr>
</tbody>
</table>

* These three animals are no longer found in the study area, but are believed to have visited the monte or lomas in the past.

References:

3. **Fauna (cont.)**

The list in Table 7 is by no means exhaustive. For example, there are many more wild birds, which were hunted for food and feathers (Guaman Poma 1966, pp.144-145). Except for the fish, almost all the animals were part of the study area folklore because they are mentioned in the Huarochirí legends, often with an active role, hence the reference to Avila.

It is difficult to assess how much the wild faunal resources contributed to the daily diet. In spite of the relative abundance of birds and crayfish today, I doubt that in the past they were ever regarded as more than an occasional supplement. The same is true of two of the domesticated animals in the table: the llama and the guinea pig, which were probably considered a secondary source of food (Gade 1977, p.118; Andrews 1972/74, p.131). Furthermore, it is unlikely that llamas were kept permanently in the study area for nothing resembling corrals has yet been found. Community flocks were probably grazed in the highlands, but may have come down to lomas vegetation on the coast in July and August.

At the same time use was also made of faunal resources outside the study area, mainly from the coast. These are fish and shellfish. At present the fish bones from excavations have not been identified, but if they are from salt-water fish, these are likely to be some of the common ones in the ocean around Lima. Tentative identification has been made of some shell-fish, which are found on the surface of most sites. These were used for ornaments (fig. CV e - k) as well as food. The spondylus shells from Ecuador fall into the luxury category. They are found either whole or as beads and bead blanks (fig. CV f, j), both in excavations and surface collections.
They must have been traded, perhaps using coca as a medium of exchange (Murra 1975, pp.255-267; Rostworowski 1970; Paulsen 1974).

It can be seen from tables 6 and 7 that the wild resources of the study area were by no means negligible. Most were put to good use and fulfilled some dietary and other cultural needs. The fact that use was made of some rather unpromising materials, e.g. the stone, pays tribute to the inhabitants' resourcefulness and ingenuity. At the same time, although such resources confer a certain amount of self-sufficiency, it must be remembered that this is only in conjunction with an economy based on agriculture. Furthermore, the presence in the archaeological record of material not indigenous to the study area makes it clear that the inhabitants regularly exploited the resources of the nearby shore, lomas and highlands for additional food and raw materials. An examination of G.M. 2 shows that they were well-placed to do so, for there were many routes along dry quebradas that would take them to these areas, without their travelling up and down valley.

In conclusion, the valley offers both advantages and disadvantages for those residing there and practising agriculture. The advantages are the equable temperatures with no great seasonal or diurnal/nocturnal changes; the certainty of year-round sun; useful rocks, minerals, fauna and flora; a central location with regard to highland and coastal resource areas; and a suitable environment for growing one of the most highly-esteemed plants of ancient Peru. The disadvantages are the lack of cultivable land; the poorer soils; the scant rainfall and its unpredictability, so that the amount of water available for irrigation fluctuates sharply from year to year; the possibility of disease from the phlebotomus; and animals with a nuisance value.
Since it was inhabited successfully, judging by the numbers of sites occupied from the EIP onwards, the advantages must have outweighed the disadvantages. Such zones are nowadays characterised as being of little economic importance, where agriculture can only be on a subsistence level. Although this statement may be true today, it was less true before the Spanish conquest, when their potential for coca cultivation made them a source of continued dispute between highland and coastal groups (Rostworowski 1977, p.179).

Notes to Chapter Two

1. Dillehay 1979, note 12; Rostworowski 1977, p.169; Pulgar 1967, pp.63-82; Tosi 1960, pp.31-37. All these authors describe the same zone under different names and with slightly differing limits.

2. For example, there is no weather station on the central coast between 300 and 2000 m. One might also cite the omission of the Chontay to Antioquia sector in Arenas and La Rosa's 1973 study of irrigation in the Lurín. Consequently, this chapter has to be based partly on my own observations and partly on data from adjacent zones.

3. Dollfus (1965, part IV, pp.264-370) gives a general geological description of central coast valleys. His plates (XXXIV, fig.2; XXV, fig.3; XXXVII, fig.1; and XXXIX, fig.1) show the slope formation and the narrow valley floor.

4. This is an occasional occurrence in the Sisicaya quebradas during years of abnormally high rainfall in the highlands. It is exceedingly rare in the Huaycán sector.

5. My feeling is that this expansion of settlement to the back of a quebrada is due to a dislike of reoccupying platforms settled by ancestors.

6. The San Vicente quebrada (G.M. 3) is an exception, but this was heavily settled during the EH and EIP. On the south bank there are numerous suitable quebradas except between Vichuya and Huarangal. This section also lacks late sites.
7. Yanascocha and Paullococha, lakes that feed the Lurín, are too small to be put on G.M. 1, in contrast to the numerous large lakes that feed the Chancay, Rimac and Mala.

8. Arenas and La Rosa (1973) state that it is 110 kms long, but they are including the tributary that comes from behind San Damián in this measurement.

9. The data can be found in Peñaherrera del Aguila (1969, p.127) where the Lurín's maximum monthly run-off in cubic metres per second is 100, compared with 175 for the Rimac, 123.1 for the Chancay, and 169.5 for the Mala. It should be further noted that these maximums do not all occur in the same year and that the fluctuations are random, for the pattern of increase and decrease in one river is not necessarily reflected in neighbouring ones. For example, government statistics (Anuario Estadistico del Perú 1969) show that in 1940 the Huaura and Chincha rivers had more run-off than in 1941, whereas in other coastal valleys the run-off was greater in 1941 than in 1940.

10. This figure is different from Peñaherrera's quoted in table 2. I think this is because the latter concerns himself with the lower courses of the rivers and estimates their basin from the confluence. Arenas and La Rosa refer to the total surface area drained by the river.

11. This figure is calculated from Arenas and La Rosa's data (1973, pp.1-6).

12. When the gradient is gentle, subsurface waters from the river can seep through to the surface, forming slightly marshy areas known as puquios.

13. In this respect it is interesting to compare the short ditches of the Lurín with the longer ones of the Chillón, where Dillehay (1977, p.398; 1979, p.25) states that long ditches from upvalley water the lower valley.

14. Garúa originates in the bed of low-lying stratus that hangs over the coast from May to November. This cloud bed is due to the effects of the cold Peruvian current and to the position of low pressure areas. The moisture from these clouds condenses as the lightest of drizzles, known as garúa. Such moisture is responsible for the vegetation on the low hills behind the shore, known as lomas. See Dollfus 1965, pp.13-15; Pulgar Vidal 1967, p.42; Peñaherrera del Aguila 1969, p.49; Tosi 1960, Chap.9.

15. Dollfus (1965, p.262) states that Chosica in the Rimac valley at an altitude of 800 m, (which is comparable to Nieve-Nieve), has an average rainfall of 100 mm per annum. The range of variation is from 25 to 250 mm. This seems high compared with Antioquia, which is further inland and at a greater altitude.

16. This calculation is also based on the number of hours of sunshine in Huancayo, which is the nearest highland weather station to the study area (Anuario Estadístico del Perú, p.196). This figure is given as 2361 hours. However, Huancayo is well within the summer rain belt and has 171 days with rain. The effects of the garúa and the rain are likely to cancel one another out, so
that 2000 hours is a conservative estimate.

17. See Matos Mar 1964, pp.89-100. In the study area ditches must be blocked up at 6.00 pm each evening and unblocked the following morning, otherwise the area below Cieneguilla will not have much water.

18. Class I soils are only found downvalley near the town of Lurín where the ground is flat. Class II are also found on bottom lands. Classes V and VI are unsuitable for agriculture. They include the river bed, adjacent banks and the back of quebrada fans.

19. Rostworowski (1977, pp.72, 178-179) cites various documents from the Chillón which show that land used for coca was also appropriate for other fruit trees and ají, but never for maize. This division is probably due to factors of climate and water discussed previously, as well as to soils.

20. Dollfus 1965, p.269 and plate XXXIX fig.1. Dr. E.J. Cobbing (personal communication 1982) suggested that tonalite/granodiorite is the correct designation.

21. Beds of fine silts in upper river terraces provided a source for wall plaster. There is one example of these below site 56 (S.M. 14). The plaster was mined by scraping with a stick whose marks are still visible.

22. The testimony of Sebastián Yaku Willka in Guillén (1976, pp.80-81) indicates that a large quantity of gold and silver objects was taken by local curacas from the province of Yauyos to Hernando Pizarro at Pachacamac. Silver objects are also known from Pachacamac and La Centinela near the town of Lurín (Uhle 1903, pp.69, 72, 91). Raimondi (op. cit., pp.13-33; 39-40) mentions that silver mines are to be found at Tuctocochoa and Parac, between the Lurín and the Rimac.

23. Dollfus (op cit., p.376) states that on the western slopes of the Andes and the coast the production of clays was limited. Dr. E.J. Cobbing confirmed this and drew my attention to the source near Langa (personal communication 1982).

24. Coca was poorly represented in my excavations, but probably more widely cultivated than the small sample suggests. Rostworowski (1967/68, 1972b, 1973) has dealt with the importance of the Chaupi Yunga for the cultivation of coca, particularly with regard to the Chillón.

25. I have distinguished three zones, because I am not sure whether all the wild plants found in and around the cultivated fields could occur in the monte. Weberbauer (1936, pp.30-35) distinguishes two: the mixed river bushwood, including agricultural areas, and the desert with or without a few isolated xerophytic plants. He mentions many plants to which I have not yet been able to assign a Spanish or Quechua name.
26. Patterson (1971, p.317) has an excellent picture of monte taken near Molle quebrada. The trees have been disappearing rapidly for Raimondi (1945, p.10) states that in 1862 Cieneguilla hacienda was sending 48 mules loaded with firewood to Lima every day.

27. To the best of my knowledge birds are not eaten by the present-day inhabitants. One family of my acquaintance catches some crayfish, but the amount consumed would come to no more than two per person three times a week.

28. The Huarochirí legends give the impression that most villages possessed llamas for the worship of Pachacamac. The Checa looked after them at Sucyahuillca (Avila, 1966, p.127).

29. The lomas were another possible resource area. Deer and guanaco may have frequented the vegetation in the lomas de Caringa (G.M. 2) as well as monte in the study area. An informant in the valley told me that deer, guanaco and even viscacha still come down from the highlands to graze in the above-mentioned lomas. Raimondi does not mention seeing guanaco on his 1862 journey, but he does mention deer behind Yauyos (1945, p.136) and near Lurín (ibidem, p.8).

30. These include the anchoveta, corbina, bonito, merluza, pejerrey etc. all listed in Maisch 1935, pp.97-134.

31. The most common are a clam (mesodesma donacium), a mussel (mytilus chorus), a pecten (pecten purpuratus) and a limpet (concholepas sp.).

32. These have not been discussed fully here, but it is worth noting that the phlebotomus verrucarum, an insect causing the disease of verruga, lives in the huanarpo (jatropha urens) (Pulgar Vidal 1967, p.67). Raimondi (1945, p.15) noticed the plant near Antioquia. Other animals with a nuisance value are snakes (two poisonous species), spiders (two poisonous species), scorpions, ants and mice. Their presence could well have affected storage practices and other activities.

33. Dillehay (1979, p.25) has commented on the irony of the Chaupi Yunga's possessing the greatest diversity of plants and the least amount of cultivable land. Tosi (1960, p.35) is also pessimistic about the zone's potential.
CHAPTER THREE

THE DATING OF THE NORTH BANK SITES

General Remarks

The two following chapters describe and date every site in the study area, this being a necessary preliminary to a discussion of the late architecture and settlement pattern. The original survey team located and numbered 43 sites on the north bank and 53 on the south bank. Two more sites have been added in the Sisicaya sector: no. 354 on the north bank and no. 353 on the south. Seven others, nos. 44, 46, 47, 48, 175, 177 and 343 are briefly mentioned, although strictly speaking they fall outside the study area. Earle classified 30 of these sites as EIP in his 1969 study (Tables 2 and 6), but some of them have a later occupation. Furthermore, there are other sites which clearly date back to the EIP, but which he omitted to mention. Consequently, it has been necessary to include the EIP and the few EH sites in the discussion.

This chapter examines the north bank sites from east to west. Each site is identified by number, name and site plan, if any, and dealt with under the following headings:

I. Location

Reference is made to the appropriate site map. Most late sites and some early ones can be found on these small contour maps. For those sites that could not be included, there is a short description of their location in Section IV. In addition, a general idea of the size and location of each site may be obtained by consulting G.M. 3.
II. Size

This measures a site's overall area, which is considered to be its median length by its median width. This figure is easily calculated for those late sites that have been mapped or measured with a tape. For others, both late and early, I have chosen what seemed the most appropriate from the varying estimates given by different field workers.

III. Collections

This section gives the dates when collections were made and the total number of sherds in the surface collections from late sites, excluding the special "random" samples of 1978, (for which see Chart IV). The sherd totals for most EIP sites are taken from Appendix 1 of Earle's study. The collections from other sites are small, i.e. under 50 sherds, unless stated to the contrary.

IV. General Description

This section describes the site's structures, their size and features of special interest. The large late sites that have been mapped are dealt with differently. They have been divided arbitrarily into sectors for ease of description. The location of these sectors can be found on the appropriate Site Map. Each sector is described separately by listing the types of structures, the associated ceramics and the probable date.

The basic unit of description is the room, which is here considered as any space enclosed on at least three sides. Where walls are pirca, rooms are referred to as house circles, if they are found on flattish land. If the rooms occur on sloping ground, in which case the enclosing walls are usually part-retaining, they are referred to as house platforms. The word terrace is usually reserved for the
agricultural platform. When walls are mortared, groups of adjoining rooms are called room clusters. Those clusters with large courtyards are referred to as patio groups. Further information on this classification is given in Chapter Five.

Where the overall area of a structure is given, this refers to its median length by its median width and includes the walls. Where the average room size is given, this refers to the average of all room interiors and does not include the walls.

V. Surface Ceramics

A list is given of the common rim forms and other diagnostic sherds. EIP sherds are listed as such, without details. Such a reference means that the sherds are similar to those illustrated in fig. XCVII. For further information Earle's 1969 study should be consulted, particularly Appendix 1 which gives the breakdown of types at each site. For EH sherds reference should be made to Scheele's 1970 thesis. Charts I and II of this thesis give the breakdown of the surface collections for the major LH and LIP sites by ware and form.

VI. Date

Sites are assigned a date, often a multi-period one, on the basis of the sherds in the surface collections, although any other available information is considered. The late forms and decorative features were dated independently of the structures in Appendix I. Here this information is used to date the sectors and/or structures with which the sherds are associated. Willey (1953, pp.10-11) has mentioned some of the weaknesses of this "associated dating", as applied to the Virú valley sites. However, for the reasons stated
in Appendix I here, I am confident the method is valid for the study area.

Sites that consist of a few house platforms usually have small collections of under 50 sherds, few of which are diagnostic. One can only make a tentative assessment of their date from such limited information. In general such sites are not LH, given the fact that the standard LH plainware form, Brown Ware I, is easily recognisable and tended to be collected wherever it occurred.

Note:

Irrigation ditches are discussed separately and usually after the last of the sites with which they are associated.
General Description

This quebrada leads to Cocachacra in the Rimac valley, some 12 kms to the north. The site extends for 1 km along both sides of a deep water channel and is about 500 m wide. However, the structures are not continuous, so that about one third of the area is devoid of cultural material. There appears to be no planning behind the site, which is a haphazard jumble of structures, some of which are barely distinguishable from one another. Since the Spanish conquest huaycos have eroded the steep sides of the water channel, causing the collapse of prehistoric walls built too close to the edges. Such huaycos have also deposited material on the lower alluvial terraces and covered much of one structure in sector II. As stated in Chapter Two, there is a copper mine in the hills behind. This has been recently worked by a miner who has built a dwelling on the site and left traces of his copper-smelting activities.

The site has been divided into nine sectors.

Sector I

This extends from the modern road to the tip of the spur on the south side of the water channel. It comprises:

Two patio groups with areas of 475 and 540 m².
Three room clusters with areas from 168 to 2000 m² and with from 8 to 103 rooms. Many rooms have pits, some of which contain human burials.
At least five groups of house circles with areas from 6 to 12 m².

Two parallel walls, 1 m thick, close to the edge of the water channel.

A section of the Inca road that once crossed the site. It zigzags down the 25 m drop to the south of the structures and meets the modern road.

South of the above structures are other groups of ruined house circles which were not mapped or counted.

Surface Ceramics

Brown Ware I; Cuzco-style; Orange Ware VA and I, snake design; some Colonial and a few EIP rims.

Date LH

Some of the ruined house circles are probably EIP, although it is not yet possible to assign the EIP sherds to any particular structure.

Sector II

This extends eastwards from Sector I until the structures end. It comprises:

Two patio groups with attached room clusters, from 4050 to 4950 m². One of them has a large courtyard with a rectangular room in one corner. Its size and position resemble those of the gabled room at Avillay.

One group of tombs on a large platform 75 m².

Six room clusters on the quebrada floor and slope. They vary in area between 55 and 1952 m². The largest has at least 87 rooms, many of which contain pits and human bone.
A path with steps that leads to the top of the ridge, forking in several places to intermediate house platforms.

Surface Ceramics

Brown Ware I; Cuzco style; Orange Ware with snake design; an occasional Dark Brown Ware I and II; Colonial rims.

Date LIP, LH, Colonial Period.

Since there are a few LIP sherds, it is possible that some of the structures date back to that period.

Sector III

This is on the south side of the water channel 100 m east of Sector II. It comprises:

Eleven house circles with low walls and an average area of 12 m². Each has an oblong pit around which traces of fires can be seen.

To the east of these circles is a rectangular courtyard.

Surface Ceramics

Brown Ware I; Cuzco style and Colonial sherds. It is my impression that these come from the courtyard rather than the structures.

Date LH, Colonial Period.

Sector IV

This is on the north side of the water channel opposite Sector II. It comprises:

A minimum of 46 house platforms, either isolated or in groups, with an average area of 18 m².
Surface Ceramics

Brown Ware I; a rare Cuzco-style or Colonial sherd.

Date LH, Colonial Period.

Sector V

This is west of Sector IV, after a gap of 100 m in construction.

It comprises:

Two rectangular room clusters with large rooms averaging 24 m².
Some of them contain tombs.
One "L" shaped room cluster with the rooms marked out by boulders and never completed.
Two groups of platforms, which have an area between 11 and 16 m².
One group of house circles similar to those of Sector III.

Surface Ceramics

Brown Ware I rims.

Date LH

Sector VI

This sector includes the ridge top and most of the slopes.

It comprises:

Two paved courtyards varying in size from 94 to 300 m².
One stepped platform with a small dais on the summit. The whole structure is about 144 m².
Seven partly natural and partly artificial platforms supported by retaining walls. These vary in size from 36 to 260 m².
A minimum of nine other platforms used for pit tombs and rectangular above-ground tombs.
One path that runs the length of the ridge with steps in appropriate places. It starts on the quebrada floor to the south of Sector VIII and continues onto the ridge at its saddle, where it passes through an entrance in a low wall. It ends at the small platform at the tip of the ridge.

Numerous platforms on the slope. Many contain tombs which have all been looted to give a mass of rock debris, bones and sherds.

Surface Ceramics

Brown Ware III; Dark Brown Ware I and II; an occasional Brown Ware I and Cuzco-style sherds. The first three forms are particularly associated with the mass of tombs on the upper platforms and are also found along the ridge top. The LH sherds are found near the rectangular, above-ground tombs.

Date LIP, LH.

The architecture is mainly LIP, but the ridge top was used in the LH when additional tombs were built.

Sector VII

This is on the north side of the water channel, 350 m east of Sector IV. It comprises:-

A minimum of eighteen house circles in varying-sized groups.

One large wall, 54 m long, 1 m high and 0.90 m wide. It runs from the base of the slope to the edge of the water channel.

Various isolated house circles and one rectangular room cluster marked out with boulders. These are opposite Sector III and were not mapped.
Surface Ceramics

These are rare and include a couple of Brown Ware I rims and a Cuzco-style sherd.

Date LH?

There are too few sherds to be certain of their association with the structures.

Sector VIII

This is on the south side of the water channel opposite Sector VII. It comprises:–

One wall directly opposite that of Sector VII, but in worse condition. It appears to be a continuation of the same wall. A minimum of fifteen house circles, two of which have pits. One large platform, about 63 m², at the base of the slope. A short flight of steps leads to it from below.

Surface Ceramics

There are few sherds in this sector. A Brown Ware I rim and a Cuzco-style sherd were found in one room. There are no sherds on the platform, but on the talus between it and Sector III. I have noted several EIP sherds and one unusual rim with a carination. This resembles rims illustrated by Milla Villena (1974/75, lámina 4 no. 1) from the upper Rimac valley and dated as MH.

Date MH? LH?

This is uncertain because there are too few sherds to date the structures. Certainly the area between this sector and Sector III had an EIP/MH occupation.
**Sector IX**

This is situated on the far side of the ridge and faces the river. It is directly below the saddle and comprises:

*Several heavily eroded platforms*, some with pits. On one large platform is a small room, 39 m², with wall plaster painted red and yellow.

*One path* leading down to this sector from above. This is the only means of reaching the sector, which is inaccessible from below.

**Surface Ceramics**

EIP rims; Brown Ware I and III; Dark Brown Ware I and II; some Orange Ware and some Cuzco-style sherds.

**Date**

EIP, LIP, LH.

**General Discussion**

The quebrada of Chaimayanca has been occupied from the EIP to the Colonial Period. The former saw some occupation at the front of the site on the flat ground at the base of the spur. There was another dwelling unit further up the quebrada at the base of the saddle. This occupation probably lasted into the MH and it is possible that Sectors VII and VIII belong to these periods. During the LIP there was extensive occupation of the slopes of the ridge and a ceremonial precinct with tombs was built on the ridge top. Some of the room clusters on the south side of the water channel belong to this period. During the LH the occupation of the quebrada floor increased, and activities continued on the ridge top, where more tombs were built. The occupation was extended to the opposite side of the water channel, where there are more house platforms and additional room clusters of
this period. Both sides of the water channel, but not Sector IX, continued to be occupied during the early Colonial Period.

PV48-159 Piedra Angel

Location: G.M. 3 Size: 10 ha
Collections: 1966 Total sherds: 121

General Description

The site begins northwest of the main water channel of the Chaimayanca quebrada and extends on both sides of the modern road in the direction of Sisicaya. At this point, the road crosses a flat plain some 300 m wide between the base of the hills and the sharp drop to the river. This plain is known as the Pampa de Sisicaya and is completely barren, since it is impossible to bring an irrigation ditch to this height.

The site extends 400 m along the road and 250 m in the opposite direction. These measurements are approximate, since no plan has been made. The majority of structures have collapsed and there is so much debris that it is impossible to make a sketch map of a single building. The only clearly defined structures are groups of platforms which extend up the hill slope which is cut by two erosion channels. The 1966 team estimated that these platforms were about 10 m long and 5 m wide. A pirca wall, 0.80 m wide and 1 m high, parallels the road for about 120 metres. It is 50 m from the road and runs along the lower hill slopes. A similar wall runs perpendicular to it along the side of one of the erosion channels.

Southwest of the road is an area of open courtyards and debris from collapsed rooms. One mortared and plastered room was noted,
as were projecting slabs to support another floor level. There were some pits, one of which contained weathered human bone. The debris probably comes from room clusters and patio groups similar to those of site 164.

**Surface Ceramics**

Brown Ware III; Dark Brown Ware I and II; and EIP rims. There is no indication what part of the site these come from.

**Date** EIP, LIP.

---

**PV48-161**  
Location: G.M. 3  
Size: 0.50 ha  
Collections: 1966, 1968  
Total Sherds: 161

**General Description**

See Earle 1969, pp.63-65; 79-80. The site is located between site 159 and the next quebrada downvalley in a small bowl-shaped inlet that breaks the line of hills. It consists of house platforms on the slope.

**Surface Ceramics**

Mainly EIP. There are also a few Dark Brown Ware II rims and a few brown sherds with cane-stamped circles.

**Date** EH? EIP, LIP.

This site has been placed in the middle EIP by Earle (op. cit., p.43). The other sherds suggest a small occupation during the LIP and maybe the EH.
PV48-173  San José

Location:  G.M. 3  Size:  < 0.25 ha
Collections: 1966, 1968  Total Sherds: <50

General Description

See Earle 1969, pp.63-65. The site is situated in the quebrada of the same name behind the modern cemetery of the town of Sisicaya. There are house platforms on both sides of the quebrada. On the floor of the downvalley side there are some house circles with pits containing burials.

Surface Ceramics

EIP rims and some late Orange Ware.

Date EIP, LIP?

Earle (op. cit., p.70) tentatively placed the site in the early EIP. He recognised that the sample was mixed and there is probably a small LIP occupation.

PV48-171

Location:  S.M. 2  Size:  <1.00 ha?
Collections: 1966  Total Sherds: <50

General Description

This site is situated on the floor of the quebrada immediately behind the town of Sisicaya. There are a few house platforms on the lower slopes at each side of the quebrada mouth and traces of walls on the quebrada floor.
Surface Ceramics

EIP rims, including neckless ollas (fig. XCVII j, k) and a brown sherd with cane-stamped circles.

Date EH? EIP.

Earle (op. cit., Appendix 2) thought the site might date to the early part of the EIP, and that the collection was similar to that of 169. Since the latter site dates from the EH, it is possible that 171 does.

PV48-169  Sisicaya  S.P. 2

Location:  S.M. 2  Size:  2.50 ha

General Description

The site is situated behind an irrigation ditch (no. 1 on G.M. 9), which waters a set of agricultural terraces. These are probably ancient and now contain apple trees. The site extends for 225 m along the hill slope and varies between 86 and 120 m upslope. The platforms to the east extend higher up the slope than those to the west.

The site has been arbitrarily divided into three sectors whose boundaries are marked by old erosion channels. The two western sectors are similar, comprising groups of house platforms on the slopes and room clusters at the base. The eastern sector has only a few platforms. In the middle sector the structures may have extended further down the slope towards the second ditch (see S.M. 2) and been destroyed by modern agriculture.
Sector I

This is the westernmost sector and in best condition. It comprises:

Several groups of platforms that extend over an area of about 1176 m². There are at least 28 platforms, some of which have rectangular tombs built against their back walls. Several room clusters whose outlines it is impossible to discern. Only one room in a cluster could be measured (S.P. 2) and this was 16 m² with four semi-subterranean compartments.

Surface Ceramics

Dark Brown Ware II; Brown Ware III; some Brown Ware I and Cuzco-style sherds; a few Orange Ware V and VII rims; EIP sherds at the base of the slope among the rubble.

Date EIP, LIP, LH.

Sector II

This is the sector between the two erosion channels. It comprises:

Several groups of platforms similar to those of Sector I. There are at least 47. Several room clusters in worse condition than those of Sector I.

Surface Ceramics

Similar to those of Sector I with the addition of Black Ware.

Date LIP, LH.
Sector III

This is the easternmost sector and extends for some 75 m along the slope, but not quite as far as the quebrada where site 171 is situated. It comprises:

About eleven platforms, close together, none of which has any notable feature.

One isolated platform, some 25 m to the east of the group.

Surface Ceramics

Undiagnostic Brown Ware sherds.

Date Unknown.

General Discussion

The 1966 team found an EH bowl sherd here (fig. XCVI 1). Its precise location was not recorded and, in spite of careful searching, no more have been found. There are, however, some neckless ollas which may well date back to the EH (Scheele 1970, p.110), but it has not been possible to associate these or the EIP sherds with any particular group of structures. Architecturally, the site resembles the slopes of sites 164 and 109, with its interconnected platforms, above-ground compartments for tombs, and plastered room clusters at the foot of the slope. The pottery associated with all of these is late.

PV48-167

<table>
<thead>
<tr>
<th>Canturía</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: S.M. 3</td>
</tr>
<tr>
<td>Collections: 1966</td>
</tr>
</tbody>
</table>
General Description

The site extends from behind the irrigation ditch crossing the alluvial fan as far as the base of a small spur that rises steeply to the ridge bordering the quebrada. The water channel is unusual because it is twisting and lies some 16 m below the fan, making it difficult to cross from one side to the other. The irrigation ditch has to be taken far back into the channel in order to cross it. Furthermore, it is impossible to walk along the floor of this quebrada into the hills, because about 100 m inwards there is a sheer, impassable rock wall, some 30 m high.

Beside the irrigation ditch is a small room cluster. It is in poor condition and the individual rooms are scarcely discernible. There are pits and semi-subterranean compartments in some rooms. One of the rooms was 7 m². Behind the cluster is a rectangular courtyard which is probably part-modern, since some walls are unmortared. In its north corner are some small rooms. Behind it is a wall which runs to the base of the spur. There are also a few platforms to the east, on the slope above the ditch.

Surface Ceramics

Brown Ware and Orange Ware body sherds; one of the latter has white paint daubed over it. In 1978 a Brown Ware III rim was noted in the room cluster. There are some modern, glazed sherds in the courtyard.

Date LIP.

Note:

There is another site on the same side of the water channel, which was not surveyed by the 1966 team. It was discovered during the survey of the areas between Avillay and Canturia, when a track was noted high up on the hillside. One reaches the track by climbing up the spur behind
site 167. It leads inwards towards the quebrada interior and its purpose was to avoid the wall of rock in the water channel. The track is about 200 m above the channel and no more than 1 m wide, it is unpaved and supported in places by a *pirca* retaining wall. It eventually leads to a small plateau that contains some house circles. All the stones have a reddish patina, which makes it difficult to find surface sherds. Only a few body sherds were noted but not collected. The purpose of the site seems to be to guard communications between the valley and the quebrada interior. Its dating is problematical, although it is unlikely to be LH.

<table>
<thead>
<tr>
<th>PV48-165</th>
<th>Canturía</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td>S.M. 3</td>
</tr>
<tr>
<td><strong>Collections:</strong></td>
<td>1966, 1968</td>
</tr>
</tbody>
</table>

**General Description**

See Earle, op. cit., pp.63-65; 76, 79; Appendices 2 and 3.

The site is situated opposite site 167, on the downvalley side of the water channel. Sector A is situated on the quebrada floor and consists of several house circles. Sector C is on the hillslope and ridge top and covers some 1200 m².

**Surface Ceramics**

Sector C has EIP sherds and has been placed in period 5 of the EIP by Earle. Sector A has similar EIP sherds plus Brown Ware IV.

**Date EIP, LIP?**

<table>
<thead>
<tr>
<th>PV48-160</th>
<th>--</th>
<th>--</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td>S.M. 3</td>
<td><strong>Size:</strong></td>
</tr>
<tr>
<td><strong>Collections:</strong></td>
<td>1966, 1978</td>
<td><strong>Total Sherds:</strong></td>
</tr>
</tbody>
</table>
General Description

The site is some 50 m above the irrigation ditch currently in use, although another older one, now dry, runs through it. Beneath this upper ditch are some well-built agricultural terraces that have been recently used for cultivating fruit trees. The upper ditch has been partly redug for this purpose. The width of these terraces is about 2.6 m and they can be up to 20 m long. Above the upper ditch are more terraces or platforms, some of which have stone-lined pits, about 1 m in diameter. Human bones were found in at least one of these pits.

Surface Ceramics

Brown Ware I, IV, VI and VII; Dark Brown Ware II; some Orange Ware body sherds and a few EIP sherds.

Date EIP, LIP.

PV48-158

Location: S.M.3
Collections: 1966
Size: 0.75 ha
Total Sherds: 50

General Description

This site is a continuation of the previous one, although the sherds are not continuous. It extends along the slope for some 250 m on both sides of the ancient irrigation ditches. It ends as the Inca road descends from the Avillay ridge to the fields.

There appear to be several groups of platforms scattered over the slope. Some of them are cut by the irrigation ditches and others were built beneath them after the ditches had been abandoned. Retaining
walls are about 0.50 m high and enclose a space between 2 and 4 m$^2$. Some of the platforms contain stone-lined pits.

**Surface Ceramics**

EIP sherds; Brown Ware II and IV. On the Inca road I found an Orange Ware face-neck jar rim, which is much later.

**Date EIP, LIP.**

Earle (op. cit., appendix 2) considered the collections to be similar to those for site 165. There seems to be a later component at both sites.

**Irrigation Ditch I**

This ditch is the longest in the study area and still in use today. It begins below Chaimayanca and waters apple orchards beneath the Pampa de Sisicaya. It crosses the quebradas of San José, Sisicaya and Canturfa and ends on the flat land below the Avillay ridge. It will be seen on S.M. 3 that, after crossing the water channel at Canturfa, it branches into three. The lower branches, ditches B and C, are the ones currently in use. The upper ditch A runs through site 160 and forks at site 158. These extensions are 0.50 m wide and stone-lined. Further along the slope it will be seen that the Inca road cuts right through them, proving that they were not in use during the LH. House platforms with pits are found below ditch A and its branches, and some of the agricultural terraces below site 160 appear to have been used as house platforms. It is likely that these house platforms are LIP, although the dating is not yet secure. It seems, therefore, that ditch A was in use during the EIP, and possibly the EH, since it is similar in appearance to an early one at site 98. By the early MH it was abandoned and a new branch B was constructed.
This allowed the site's inhabitants to move down onto the older agricultural terraces at site 160 and use them as dwellings.

<table>
<thead>
<tr>
<th>PV48-137</th>
<th>Avillay</th>
<th>S.P. 3A &amp; 3B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: S.M. 4</td>
<td>Size: 46.50 ha</td>
<td></td>
</tr>
<tr>
<td>Collections: 1966, 1968</td>
<td>Total Sherds:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>surface collections: 876</td>
<td></td>
</tr>
<tr>
<td></td>
<td>excavations: 21,290</td>
<td></td>
</tr>
</tbody>
</table>

General Description

Some 18.50 ha have been mapped out of a total of 46.50 ha. S.P. 3A and 3B show all the ancient structures on the downvalley floor and slopes of the quebrada, with the exception of a few upper platforms. For the upvalley slopes, they show all structures up to 50 m above the quebrada floor. However, the site extends up to the summit of the ridge, which is over 1350 m above sea level, so that there is construction over a slope of more than 500 m, since the road runs at 850 m above sea level.

The site is similar to 164, for both have construction on both sides of the water channel, varying-sized room clusters and platforms that extend to the top of the ridge. However, site 137 does not have the large rectangular courtyards of 164 and the upvalley ridge is far more rugged and steep, so that there are no paved platforms, as one finds at 164. On the downvalley side of 137 there is a small spur extending out from a higher ridge behind. A path, marked on S.M. 4 and S.P. 3A, runs from the far terraces at 137 over the spur and down to site 136.

As at 164, severe huaycos have eroded the sides of the main water channel and deposited a thick layer of silts and sands over the
gabled structure and adjacent room clusters.

Unlike other sites in the valley, 137 has suffered the most changes in recent years. Near the modern road, the Ministerio de Transportes y Comunicaciones has built a work camp, destroying the old fields on S.P. 3A and the long wall that extends out southwest from the main patio group. The rubble mound in Sector I has been bulldozed, and the terraces where test pit 1 was placed now house a hut for dynamite. The inhabitants of the hamlet of Nieve Nieve have built a school house on the far southwest terraces on the downvalley spur. The hamlet itself has expanded, and people have utilised stones from ancient structures on and around the base of the upvalley ridge. Finally, the courtyard of the patio group where pits 5 and 6 were placed has suffered a good deal of damage from bulldozing, which has obliterated compartments 4, 5 and 6 that were cleared by me.

The site has been divided into six sectors (S.M. 4).

Sector I

This extends from the tip of the downvalley spur to erosion channel no. II marked on S.P. 3A. It comprises the following:

- Two groups of about ten platforms with an overall area between 500 and 600 m².
- One low rubble mound with several oval depressions and traces of walls in it. Its area is about 900 m².
- Several unmapped platforms on the slope of the spur that separates Avillay from Nieve Nieve.

Surface Ceramics

EIP sherds; Brown Ware IV; Dark Brown Ware I and II rims on the far southwest platforms. Similar sherds on the unmapped terraces, together with a rare Cuzco-style fragment. Brown Ware I and Cuzco-style
sherds on the platforms where pit 1 was dug; Brown Ware body sherds on the rubble mound. There were two rims: a Brown Ware V and an EIP rim on this mound.

**Date EIP, LIP, LH.**

The far terraces and the unmapped ones date from the EIP to the LIP. The rare Cuzco sherd on the latter was probably dropped by grave looters working on the other side of the spur. The terraces with pit 1 are LH, which is confirmed by the excavations (see Appendix II). The rubble mound presents a problem. There are no Brown Ware I rims, which one would expect to find if it were occupied during the LH. It is similar in appearance to a smaller one onto which the large tomb complex in Sector II encroaches. Since this latter mound can be dated as EIP from the associated sherds, it is likely that the one in this sector also dates to the EIP.

**Sector II**

This extends from erosion channel II to the wide, low wall marked at the northeast edge of S.P. 3A. It is on the downvalley side of the quebrada. It comprises:-

One patio group covering an area of 3000 m², with 155 rooms and courtyards. Tombs border two of the larger courtyards which are over 100 m². 90% of the rooms are under 20 m².

A small rectangular room cluster with an overall area of 382 m² and 22 rooms, with an average size of 11 m².

Three room clusters with an irregular perimeter and an overall size between 25 and 800 m². The average size of the rooms is 10 m².

Three groups of platforms between erosion channels II, III, IV and the wall. There is a minimum of 117 platforms with an average
size of 12 m². A few of the lower platforms have small rectangular, above-ground tombs built on them.

A minimum of 33 house circles and some half-buried walls. The average area of the circles is 8 m².

A large tomb complex with a total area of 255 m². It consists of a series of courtyards around a single, above-ground tomb. The entry to the complex is flanked by two small chambers.

Surface Ceramics

Most structures have similar sherds. These are Brown Ware I; the Cuzco style; Orange Ware with the snake design. The patio group has the rare piece of Black Ware and some Dark Brown Ware forms. The house circles near the water channel have EIP sherds.

Date EIP, LIP? LH.

The excavation and surface collections in the patio group show that the southern half was constructed during the LH. A Cuzco-style sherd was found in the wall plaster of the courtyard where test pit 4 was dug, suggesting that this part of the structure was built then. The excavations also revealed some Dark Brown Ware forms in the northern half, but not in sufficient quantities to suggest a substantial LIP occupation of the structure. There were a few EIP sherds in the lowest layers of pits 5 and 7, which points to an earlier settlement of the area. This is confirmed by the EIP sherds found around the house circles and depressions. The plan of the rectangular room cluster adjacent to the patio group also suggests an LH date, since it is similar to units at site 136, which is wholly LH. The other room clusters probably date back to the LIP because of the Dark Brown Ware forms found in them. The upper platforms have similar sherds to the room clusters except that there are no Dark Brown Ware sherds.
They are all LH, as are the large tomb complex and the small rectangular tombs that have Cuzco-style fragments scattered around.

**Sector III**

This sector comprises all the downvalley side of the quebrada on S.P. 3B.

Five groups of platforms between the wall and the erosion channels. They are all alike and some have stone-lined pits. They are larger than previous groups, being 14 to 24 m². There is a minimum of 169 platforms.

**Surface Ceramics**

Brown Ware I with the occasional Cuzco-style sherd.

**Date** LH.

**Sector IV**

This extends from the tip of the spur on the upvalley side of the water channel to erosion channel III. It comprises:-

Three groups of platforms. There is a minimum of 138 with an average size of 12.50 m².

A small, stepped platform, built at the end of the spur. This is in poor condition because stones have been removed by the inhabitants of Nieve-Nieve.

A tomb complex further along the spur and above the previously mentioned platform. The complex consists of a large courtyard with at least four rectangular tombs.

**Surface Ceramics**

EIP sherds on the stepped platform and the house platforms as far as erosion channel I. Brown Ware I and Cuzco-style sherds around
the tomb group and a small tomb on a lower terrace. Dark Brown Ware I and II; Brown Ware I and EIP sherds on the platforms between erosion channels I and III.

**Date EIP, LIP, LH.**

The majority of house platforms and the stepped platform are likely to have been occupied during the EIP. Some continued to be used during the LIP. During the LH some of the lower terraces were used to build small above-ground tombs. The tomb group on the top of the spur is also LH, not only because of the sherds, but because its position and layout are similar to an LH group at site 88.

**Sector V**

This is the area east of the previous sector, on the upvalley side of the water channel. It comprises:

**Two groups of platforms.** One is between erosion channels III and IV and the other between channels IV and V. There is a minimum of 158 platforms with an average area of 16 m² and a size range from 2 to 52 m². Such a range indicates that the platforms did not all have the same function.

**Numerous room clusters.** Some are clearly set apart from one another, notably those on the quebrada floor near the gabled structure. Others have no clear boundaries and are joined in a seemingly haphazard fashion. Some are on the flat and some on the slope, in which case they are built on prepared platforms. There is a minimum of 492 rooms with a wide size range. Those rooms between 26 and 44 m² are large enough to be considered courtyards. Three quarters of the rooms contain small compartments, both above-ground and subterranean.
Groups of above ground and subterranean tombs arranged around two flights of shallow steps. There is a minimum of 45 tombs with an average area of 4 m².

The large Inca-style building set in its own courtyard. The building is a rectangular room, 19 m long, with two entrances in the southwest wall, and a gable with roof pegs at its northwest end. There are four square windows in the room: two in the southwest wall overlooking the courtyard, and two in the northeast wall. Behind the latter wall is a smaller, squarish room which is entered from the east corner of the long room. There is a mural painting on the southeast wall. The whole building has been overrun by a huayco, which has left a deposit about 50 cms thick above the original floor level. The whole complex appears to be attached to the room cluster to the southeast. There is another ruined building with three rooms in the northwest of the courtyard.

Surface Ceramics

Brown Ware I; Orange Ware V, VII and the snake design; Dark Brown Ware I and II; Cuzco-style sherds; Colonial and a rare Black Ware sherd. There are blue glass beads on some lower terraces. The tomb groups and some room clusters on the flat ground have no Dark Brown Ware on the surface. Neither does the gabled building.

Date LIP, LH, Colonial.

From the sherd distribution it would seem that most platforms and room clusters were in use during the LIP and the LH. The irregular shape of the room clusters should be contrasted with the rectangular shape of the cluster close to the patio group, and with those of site 136, all of which are LH.
The tomb groups are also LH. The gabled building was constructed during the LH on account of the sherds found in pits 8 and 9 and because of its architecture. The shape of the gable, the roof pegs and the evenly spaced entrances suggest an Inca-type plan. On the other hand, the room behind the building and the structures in the northwest of the courtyard are not Inca in style. The four windows, although larger than coastal ones, are not trapezoidal in shape, nor are the doors. There appears to have been another door in the northwest wall, which was blocked up and then un-blocked by looters.

There is also the problem of the mural on the southeast wall (figs. CVII k and CVIII a). It is in too poor a condition to make out much of its design, which does not appear to depict any European secular or sacred theme. The few remaining curvilinear figures suggest plants and it should be compared with figures on the Pachacamac murals on the walls of the Temple of Pachacamac (Bonavia 1974, pp.117-128). It has been suggested by Bueno (1975, p.95) that the mural was painted during the Colonial Period, when the Inca building was used as a church. He believes the mural painting stood behind a high altar. It is true that the mural is on a southeast wall, but this could well be fortuitous. In any case, there are red and white pigments on other walls and on the exterior of the building. As stated above, the existing fragments do not appear to refer to anything in Christian iconography that one would suppose might be painted behind an altar. Furthermore, it would be strange for the Colonial inhabitants of the area to build a church in the neighbouring quebrada of Nieve-Nieve, as they did, when there was already a church in use at Avillay,200 m away. The available evidence suggests that the building was constructed towards the end of the LH by people who had
seen similar buildings at the *tambo* of Sisicaya, and wanted to imitate them because of the prestige of Inca culture. If it were a building constructed by and for the Incas, it would be set well away from the coastal ones. Total excavation of the complex should solve the problem.

**Sector VI**

This is the unmapped part of the site on the upvalley side of the quebrada. It comprises:

- A minimum of 76 platforms above those of Sector V. They extend upslope to a large open platform, 5.3 m wide and at least 20 m long. It is supported by a retaining wall 2 m high. Along the back of the platform runs a low bench with another high retaining wall behind it. Some very ruined paths lead up to and away from this platform. Above it there are more platforms, some of which have pits. There is also a back path to this sector from the Inca road (see S.M. 3).

**Surface Ceramics**

- Dark Brown Ware I and II; Brown Ware III and IV; EIP sherds at the summit where there is little construction.

**Date** EIP, LIP.

It would seem that the summit was used during the EIP, but the bulk of the construction here is LIP.

**General Discussion**

Site 137 has been occupied for a long time. Traces of EIP occupation are to be found at the tip of both spurs and along their lower slopes. Such traces consist of simple house platforms with a
stepped platform at the tip of the upvalley spur. By the LIP the occupation had shifted further back into the quebrada and higher up the slope. By the end of this period the downvalley spur had been abandoned. The LIP occupation on the upvalley ridge still consisted of house platforms with pits, but room clusters were built on the lower slopes and quebrada floor. By the LH the upper slopes of the upvalley side of the quebrada had been abandoned and new terraces built on the downvalley side. Room clusters were expanded and a gabled building with a large courtyard in front was added to one of them. On the pampa on the downvalley side a small rectangular room cluster and a large patio group were constructed, although the latter may have been started in the LIP. Neither of these buildings was occupied during the Colonial Period, but settlement continued in the quebrada interior. The excavations show that during this period some of the dead were re-interred in the large courtyard in front of the gabled structure.

PV48-136  
Nieve Nieve  
S.P. 4  

Location: S.M. 4  
Size: 5.50 ha  
Total Sherds: 300  

General Description  
The site is small and relatively compact compared with 137 and 164. It extends along both sides of the water channel for 300 m and is 185 m wide. The quebrada leads to Ricardo Palma in the Rimac valley.  
In front of the site runs an irrigation ditch shaded by pacae trees. It waters a set of neatly constructed terraces and then
winds across the quebrada water channel and the downvalley fan to
water a further set of terraces shown on S.M. 4. This second set
is only partially used today, but the first set is sown with alfalfa
and vegetables.

The west side of the quebrada shows haphazard construction with
scattered house platforms and a room cluster that is not quite rect-
angular. In contrast, on the east side there appears to be planning
behind the construction of Sector IV, the core of the site. This is
seen in the eight streets that intersect at right angles to create
sixteen rectangular blocks, the largest of which has an area of
437 m² and the smallest 184 m². No other site in the valley shows
evidence of overall planning.

To the north of the site is a cleared patch of ground, the size
of a football field. This was created by an intending chicken
farmer who bulldozed the area. It is likely that some scattered
house circles were destroyed. Certainly the north walls of Sector IV
were damaged in the process.

The site has been divided into five sectors.

Sector I

This includes the three southernmost structures on the west side
of the quebrada. It comprises:-

One room cluster with an irregular perimeter and an area of 427 m².

One small rectangular compartment. This is near the irrigation
ditch and has an area less than 1 m².

Another possible room cluster with an area of 72 m².

Surface Ceramics

Brown Ware I; Cuzco style; and Colonial sherds.

Date LH, Colonial Period.
**Sector II**

This includes the rest of the west side of the quebrada.

It comprises:–

*Seventeen house platforms, some isolated, some in groups of twos and threes, and one with nine rooms.* The overall size of a room varies from 2.5 to 56 m², the smallest room being no more than an isolated platform and the largest a courtyard.

**Surface Ceramics**

The same as for Sector I.

**Date** LH, Colonial Period.

**Sector III**

This includes all structures to the east and south of the rectangular blocks on the east side of the water channel.

It comprises:–

*A minimum of 57 platforms* on the lower slopes of the spur. They range in length from 1.50 to 19 m. Some have pits.

*Seven room clusters and isolated rooms.* These range in size from 3 to 35 m² and have from one to nine rooms.

*A Colonial church* that covers an area 214 m², with an adjoining sacristy, 16 m².

**Surface Ceramics**

As for Sectors I and II with the addition of Orange Ware I and VA.

**Date** LH, Colonial Period.
Sector IV

This includes the sixteen blocks and another larger block to the southwest. It comprises:-

Five room clusters with a rectangular perimeter. These are 4B, 4C, 3C, 2B, and 2C. Their area ranges from 216 to 325 m².

Eleven room clusters with a slightly irregular perimeter. Their area ranges from 184 to 437 m².

One room cluster, no. 5, that is unlike the rest. It appears to adjoin block 4A and is in poor condition since the majority of the walls are only 0.50 m high. It has an area of 1487 m².

Surface Ceramics

The same as Sector III.

Date LH, Colonial Period.

Sector V

This includes the structures to the north of Sector IV. It comprises:-

Seven house circles (six isolated and one group of two). They range in size from 4 to 137 m² and are scattered over a wide area. The largest could be a corral.

Surface Ceramics

Brown Ware I.

Date LH.

General Discussion

Unlike most other quebradas in the study area, Nieve Nieve was occupied only during the LH and early Colonial Period, for there are
no EIP or Dark Brown Ware sherds. Many sherds are large and appear to belong to vessels broken in situ and left untouched for four centuries. Moreover, unlike most other late sites, there are few tombs and little evidence of looting. One of the few identifiable tombs is a small rectangular compartment on the hill slope to the east of the church. There are also some tombs in building 5 of Sector IV, which is the only room cluster to show signs of looting and is therefore in the poorest condition of them all. The courtyards of some of the northern and eastern blocks appear to be unfinished, which suggests the site was in the process of being built when the Spaniards arrived. It is interesting that the latter should have chosen to build a church here, rather than Avillay. It suggests that the site may have had some religious significance which the Spaniards wished to counteract.

The relationship of the rectangular blocks to the larger block 5 is problematical. It may be that the latter was the earliest of the buildings at the site and that the dead had already been interred there, which would account for its being the most ransacked of the blocks. After it had been constructed, a decision was made to build the rest of the site according to a pre-arranged plan. This entailed a series of the usual room clusters being built on a grid of intersecting streets. The concept behind the actual clusters is purely local, for their architectural features, with a couple of exceptions, resemble those of irregularly-shaped room clusters elsewhere in the study area. It is possible that the ideas of a grid layout and a rectangular shape were obtained from the tambo at Sisicaya.

**Irrigation Ditch II**

This is one of the shortest ditches in the study area. Its bocatoma is below the Avillay ridge and upvalley from the modern bridge (S.M. 3). The ditch crosses the road in front of the hamlet of
Nieve-Nieve and curves around the spur that separates the two quebradas in order to water the terraces in front of site 136. The spur is pure rock and the ditch is concreted at this point, as it runs 4 m above the modern road. The terraces and those further downvalley are clearly ancient, although not as well constructed as those of sites 60 and 62 (q.v.). The local peasants could give no information as to when the ditch was concreted and were sure that no new ditch had been constructed for many decades. They also admitted that it was possible to change the course of a ditch slightly. It is likely that the hillside was dynamited and part of the former ditch destroyed when the old Colonial road was widened in the 1920s in order to allow modern vehicles up the Lurín as far as Langa. This section of the ditch had to be rebuilt, hence the concrete. The ditch and terraces should date to the LH, since there is no early site in the Nieve Nieve quebrada. On the other hand, the section in front of site 136 could simply be an LH extension of an earlier ditch that once ran lower down.

PV48-354

Location: S.M. 4
Size: 0.50 ha?
Collections: 1968
Total Sherds: <50

General Description

This site was not surveyed in 1966. It is located on a steep hillslope above the road, some 300 m west of the water channel at 136. It consists of house platforms supported by pirca walls. Sherds are found as far west as an abandoned modern dwelling situated just above the road. Some of the terraces have stone-lined pits.
and fragments of charred bone, human crania, and long bones were scattered around.

**Surface Ceramics**

Brown Ware III and IV; Dark Brown Ware II; Orange Ware VIII.

**Date** LIP.

---

**CHONTAY**

**PV48-135**  **San Martín**  **S.P. 5**

Location:  **S.M. 5**  Size:  2.5 ha


**General Description**

The site straggles along the length of the quebrada for 550 m, but the occupation only covers half of its given area. After the Spanish conquest huaycos have covered much of the rocky quebrada floor, so that the central and southern sectors of the site, particularly the plastered structures near the irrigation ditch, are covered with alluvial sands. In front of the site is a curved retaining wall, 1 m high, whose function is to protect the irrigation ditch beneath. This ditch is no longer in use, although an earlier section watered an avocado orchard to the east. The ditch curves around the hill, parallel to the modern road, and eventually disappears.

The site has been divided into three sectors.
Sector I

This includes all structures at the back of the quebrada on the east side of the water channel. It comprises:

Ten isolated house circles and three groups with four or five rooms. The average room size is 14 m\(^2\) and the range is from 2.5 to 30 m\(^2\).

One courtyard with an area 191 m\(^2\). It may have had interior divisions, but it is impossible to distinguish any because the floor is covered with alluvial sands. The walls of this courtyard are well built of carefully chosen stones and are mortared.

In front of it are other walls which may be part of the structure.

Surface Ceramics

Brown Ware I; Cuzco style; Orange Ware sherds.

Date LH.

Sector II

This includes all structures west of the water channel and in the centre of the site. It comprises:

Twenty-four isolated house circles and two groups of three rooms.

Some of the isolated rooms are built terrace-fashion, since the quebrada floor slopes steeply from north to south.

The average size is 13 m\(^2\) and the range is from 2 to 15 m\(^2\).

Surface Ceramics

Brown Ware I; Cuzco style; Orange Ware and Colonial sherds.

Date LH. Colonial Period.
Sector III

This includes the platforms and the room cluster built against the west slope. It comprises:

A set of platforms in poor condition. They vary in length and rise some 10 m above the quebrada floor. Two have a bench at the back and two others have small, stone-lined pits. One irregularly-shaped room cluster with an area 1200 m\(^2\) and about 23 rooms.

Surface Ceramics

Brown Ware III and IV; Dark Brown Ware I and II on the platforms.

Date LIP.

There are more sherds on the platforms than in the room cluster.

General Discussion

The earliest occupation of this quebrada was on top of the western ridge where site 134 has been dated to the EIP. The occupation subsequently shifted to the lower slopes and the front of the quebrada until the end of the LIP. This part of the site appears to have been abandoned by the LH since no Brown Ware I or Cuzco style sherds are found there. Instead, the occupation shifted to the centre and back east side of the quebrada floor. A large courtyard, possibly the first stage in a patio group, was built there in front of house circles. This occupation lasted into the early Colonial Period. It is not dense, as at Avillay where house platforms are close. The ditch in front of the site would appear to be associated with all occupations.
PV48-134

Location: S.M. 5
Size: 1.50 ha
Collections: 1966, 1968
Total Sherds: 144

General Description

Earle, op. cit., pp. 63-65, 71-73. Earle's estimate of the site size is 3000 m², which is considerably less than Patterson's of 2 ha, which is closer to my own. The site consists of platforms which extend as much as 50 m upslope from the road. The platforms are not continuous. Some of them were dwellings and others were agricultural terraces, because it is possible to trace the remains of an ancient, stone-lined ditch, that runs through the site, 10 to 15 m above the modern road. This ditch may be a continuation of the one at San Martín.

Surface Ceramics

EIP and an aryballus fragment.

Date EIP.

LH sherds are found in very small quantities at neighbouring sites along this hill slope. Most of these sites are dated as EIP. It is possible that there was some occupation of the area during the LH.

PV48-132

Location: S.M. 5
Size: 0.25 ha
Collections: 1966, 1968
Total Sherds: 11

General Description

See Earle, op. cit., pp. 63-65; 71-73. This site is in a
similar position to that of 134, for it extends for 75 m along the hill slope, generally parallel to the modern road. Like 134 it consists of platforms, many of which have stone-lined pits. It was impossible to trace the ancient irrigation ditch on this slope because of the scree, but the ditch reappears just before the next quebrada.

**Surface Ceramics**

EIP and a few Brown Ware I; Orange Ware VA and some white on red fragments.

**Date** EIP. LH?

As discussed previously, the few LH sherds suggest a small LH occupation on these slopes.

---

**PV48-130**

**Location:** S.M. 5  
**Size:** <0.25 ha  
**Collections:** 1966, 1968  
**Total Sherds:** 14

**General Description**

See Earle, op. cit., pp. 63-65; 75, 79. The site consists of a few platforms on the east side of a small quebrada. On the west side of the quebrada, above the ancient irrigation ditch, are a couple of house platforms and a pit with weathered human bone in it.

**Surface Ceramics**

EIP sherds on the eastern platforms. Cuzco-style sherds and Orange Ware with the snake design near the western platforms.

**Date** EIP. LH?

The eastern terraces are EIP but there is likely to be an LH occupation in the vicinity.
PV48-124

Location: S.M. 5
Size: 0.75 ha
Collections: none
Total Sherds: Nil

General Description

The site number was given to a set of agricultural terraces at the front of the quebrada with site 130. The lower terraces are in use today, with fruit and vegetables being grown on them. They are watered by ditch IV (see G.M. 9 and S.M. 5), whose bocatoma is below San Martín. The upper ones are watered by the ancient ditch, mentioned previously for sites 134, 132 and 130. Downvalley, just beyond the quebrada, this ditch merges with ditch IV.

Surface Ceramics

None

Date

 Probably EIP.

The sites associated with the upper ditch are all EIP, therefore the terraces are likely to be of similar date. By analogy with other EIP ditches, particularly no. IX, this one was probably abandoned during the early MH, so that the upper terraces were not in use during the late periods. Ditch IV was probably in use during the late periods, so that the lower agricultural terraces were being cultivated then.

Irrigation Ditch III.

G.M. 9

The bocatoma of this ditch is shown on S.M. 4. It begins below the Avillay quebrada and eventually crosses the modern road when it has gained a suitable height. Just before the quebrada of San Martín
it forks. The upper half waters the previously mentioned orchard near site 135. The lower half crosses the road again and continues to water a large plantation of *casuarina* pines. It has petered out by the time it reaches site 134. As stated previously, the ancient ditch, which can be occasionally traced on the slope beneath sites 134, 132 and 130, is probably a continuation of the upper half that waters the orchard. This ditch apparently terminated after watering the agricultural terraces of site 124.

**PV48-128**

---

**Location:** S.M. 5

**Size:** 0.25 ha

**Collections:** 1966, 1968

**Total Sherds:** 176

**General Description**

See Earle, op. cit., pp.63-65; 75, 78-79. The site is situated on the slopes of a small ridge that divides two quebradas. It consists of house platforms and sets of rectangular rooms on top of the ridge.

**Surface Ceramics**

EIP and a Brown Ware I rim; a few Cuzco-style and Orange Ware sherds.

**Date** EIP. LH?
PV48-126

Location: S.M. 6  Size: <0.25 ha
Collections: 1966  Total Sherds: 5

General Description

The site is situated on the upvalley corner of the Yanacoto quebrada. It is above irrigation ditch IV which waters fruit orchards on the quebrada fan. Except for the small sites of 126 and 99, this quebrada was never densely inhabited, which is surprising in view of the fact that there is a path up it, which leads to Chosica in the Rimac valley. The site consists of a few platforms on the slope. The 1966 survey team described the platforms as having an oval shape and being about 2 m by 1 m.

Surface Ceramics

Nondescript. There is an EIP jar rim and a modelled snake from a Dark Brown Ware III jar.

Date  EIP?

There are too few diagnostic sherds to be certain of the date. The pattern of house platforms on hill slopes is similar to that found at the San Martín sites on S.M. 5. There may have been some activity here in the LH.

PV48-99  Yanacoto

Location: S.M. 6  Size: <0.25 ha
Collections: 1966  Total Sherds: 24
General Description

The site is situated on the west side of Yanacoto quebrada, at the edge of the cultivated land. Irrigation ditch IV ends below it. The Inca road enters the fan from downvalley and disappears among the cultivated terraces below the ditch. The site consists of a few house platforms and oval house circles that vary between 4 and 9 m in diameter. The retaining walls were less than 1 m high.

Surface Ceramics

A few EIP rims.

Date EIP.

Irrigation Ditch IV G.M. 9

As stated previously, this ditch begins below the San Martín quebrada. It appears to merge with the upper, ancient branch of ditch III below site 128 and then continues over the fan of Yanacoto. This upper extension over the fan may be a recent rehabilitation of another ditch, since the ditch looks re-dug. It may have crossed the fan at a lower point during the LH, for the Inca road disappears among the cultivated terraces, which suggests that the upper ones were not under cultivation when it was built. The Inca road must have crossed the fan and joined what is now the modern road.
PV48-103

Location: S.M. 6
Collections: 1966, 1968
Total Sherds: about 50

General Description
The site is situated on top of the ridge that separates the quebradas of Yanacoto and Guayabal. It consists of oval house platforms.
There is another sector below the main part of the site above the Inca road and irrigation ditch V. This sector consists of house platforms.

Surface Ceramics
EIP sherds.

Date EIP.
Earle places it in the early part of the period.

PV48-101  Guayabal

Location: S.M. 6
Collections: 1966, 1968
Total Sherds: 132

General Description
See Earle, op. cit., pp. 63-65, 70. There are two sectors of the site on opposite sides of the quebrada. This quebrada has a steeply sloping fan which ends in a sheer drop of some 25 m to the river. The narrow, deep water channel is crossed by irrigation ditch V, which ends on the fan. Because of the steep slope, it would be impossible to reach the village of Chontay from this fan, were it
not for the Inca road that has been cut into the spur that separates the high fan from the low-lying land around Chontay.

Sector A of the site, which is on the east side of the quebrada is just under 0.50 ha and has been discussed by Earle. It consists of some 40 randomly arranged house platforms. Sector B is on the west side of the quebrada and is about 1000 m². It consists of some wide, low platforms with pirca retaining walls, about 0.60 m high. A group of rectangular rooms has been built on the platforms.

**Surface Ceramics**

EIP sherds in sector A. Brown Ware III; Orange Ware VB and body sherds with white paint are found in sector B, together with some EIP jar rims.

**Date**

EIP. LIP.

Sector A is purely EIP. Sector B has a later occupation as well.

**PV48-105**

**Chontay**

---

**Location:** S.M. 6

**Size:** 0.50 ha

**Collections:** 1966, 1968

**Total Sherds:** 116

**General Description**

See Earle, op. cit., pp. 63-65; 68-69; and Appendix 2. He describes the site as having between 25 and 50 house platforms. There is a fair amount of refuse which includes shell, charcoal and some plant remains. At the back of the site is a small dip or saddle, across which two pirca walls have been built. They are not high and are reminiscent of a similarly placed pair at site 177 (q.v.).
Surface Ceramics

EIP sherds; abundant Brown Ware II and III rims; a few Brown Ware I and IV; Orange Ware VB, VC and VIII.

Date  EH?  EIP.  LIP.

Although Earle recognised that there were some late sherds, he assumed there was a gap in the occupation and placed the site in the early EIP, partly because Scheele (1970, p.207) identified some sherds as EH. However, there are no architectural differences between various sections of the site and at present the late and early sherds appear randomly distributed. Therefore the site is more likely to have a long occupation. It is interesting that there are no Dark Brown Ware sherds here, which suggests it was abandoned before they were introduced. On present evidence it probably dates from the EH, through the EIP and MH and into the early LIP.

PV48-107  --  --

Location:  S.M. 7  Size:  0.50 ha
Collections: 1966, 1968  Total Sherds: <50

General Description

This site is located at the west end of the Chontay "pocket", on the lower hill slopes, some 25 to 30 m above the flat land near the river. Irrigation ditch VI, which is still in use, runs through the site and then terminates.

Earle (op. cit., p.65, 70) dealt only with the terraces at the west end of the site, which he estimated had an area of 0.50 ha. However, construction begins some 400 m to the east, close to the modern cemetery, so that there is an additional area some 1000 m$^2$. A pirca
wall joins these two sectors.

At the east end of the site are two erosion channels, separated by a small hummock that rises 50 m above the Inca road. On the east side of each channel are some small platforms. The pirca wall, which is 0.50 m high and 200 m long, extends from the first erosion channel over the lower part of the hummock and continues along the slope to a third erosion channel. It is about 30 m above the Inca road.

The west end of the site consists of eight levels of terracing below the irrigation ditch. These terraces are on a steep slope that terminates in a 20 m drop to the river. On either side of the agricultural terraces are a few oval house platforms. Above the irrigation ditch is a large boulder engraved with a mythical bird and other figures. The Inca road cuts through the terraces and then drops to the flat land below, where it widens into a modern track leading to Chontay.

Surface Ceramics

EIP on the western agricultural terraces and house platforms. EIP on the eastern house platforms. Brown Ware VII and Orange Ware XIII on the hummock. Dark Brown Ware III near irrigation ditch VI on the terraces.

Date EIP. LH.

The terraces and platforms are EIP but there are also some LH sherds. Given that the Inca road runs through the site, it is not surprising to find LH sherds. There may have been a small settlement to work land around the river banks and to attend to the upkeep of the road.
Irrigation Ditches V, VI and VII

No. V
There is nothing unusual about this ditch which begins below site 124. It crosses the Yanacoto quebrada at the base of the fan and well below ditch IV, ending at the fan of Guayabal. The Inca road usually runs above this ditch, although below site 103 it crosses the ditch twice.

No. VI
The important fact about this ditch is that it does not start from the river. The water in it is piped over from ditch XIII on the south bank of the river by courtesy of the Sierra Morena Hacienda. One branch curves around below the Inca road to water the lands belonging to the inhabitants of Chontay. On S.M. 7 another branch waters the terraces at site 107. What has happened is that the old ditch has been re-dug to join ditch no. VI close to the cemetery. There are traces of an older ditch above the junction (S.M. 7). The only way a ditch could water the terraces at 107 in the past would be for an extension of ditch V at Guayabal to round the spur beneath site 105. At present there is no evidence that such a ditch existed, although the Inca road could have been built over an abandoned ditch.

No. VII
The land at Chontay is a couple of metres above the level of the river. This means that it is impossible to take a ditch off at the bridge and expect it to water the amount of land that ditch VI does. Ditch VII comes off here, but it has to run parallel to the river for 300 m until it can gain sufficient height to separate from it. Therefore the ditch can only water a couple of hectares.

The extension of ditch VI at 107 must be EIP because the Inca road cuts through the terraces and through the ditch, when it could
easily have continued at a higher level. Therefore they could not have been in use when the road was built. Secondly, there is no way water could have been brought to such a height in the LH, unless it were piped over, which is unlikely, for there is no evidence of an aqueduct. Since the bulk of the sherds at site 107 are EIP, the terraces and upper ditch must have been in use then. During the LH some terraces may have been used as house platforms.

PIEDRA LIZA

PV48-102 San Isidro

Location:  S.M. 8  Size:  4 ha
Collections:  1966  Total Sherds:  <50

General Description

The site is situated 1.25 kms west of the Chontay sector, on a wide quebrada fan that slopes evenly down to flat land near the river. It consists of house platforms on both the eastern and western quebrada slopes and scattered platforms and circles on the quebrada floor. These have been built by utilising large boulders as part of the wall. The Inca road can be followed downvalley to this site from site 107. It enters the quebrada from the east and can be distinguished as it crosses the fan because it is marked with stone cobbles on either side. Some 100 m beneath it runs ditch VIII, which is currently in use and whose bocatoma is further upriver. 15 m above this ditch is an older, stone-lined irrigation ditch, part of which can be traced back on the hill slopes below the Inca road. There are some platforms on the hill slope between this ditch and the
Inca road, as it enters the quebrada. Further back in the quebrada is a small rectangular structure with two rooms, each 4 m².

**Surface Ceramics**

EIP sherds. A few Orange Ware VB, VC, IX, X and XIII. A Cuzco sherd from near the structure.

**Date**

EIP. LIP. LH.

The later sherds come from platforms in the centre of the quebrada. The earlier ones from platforms at the side. The main occupation is EIP, associated with the upper ditch and agricultural terraces. There was a small occupation during the LIP and LH.

**The Irrigation Ditch (unnumbered)**

Its source cannot be traced at present. It must have continued along the hill slope to water agricultural terraces at site 99 B. Since the latter site may date back to the EH and site 102 is EIP, the ditch can be dated as EIP and possibly earlier.

**PV48-100**

Location: S.M. 8  
Collections: none  
Size: < .25 ha  
Total Sherds: Nil

**General Description**

This site number was given to a single structure, 300 m west of site 102. It is situated beyond a small erosion channel and is between the Inca road on the hill slope and ditch VIII, being 5 m above the latter. The 1966 survey team gave two size estimates: 13.5 and 35 m². The former is probably accurate. The structure
is rectangular with mortared fieldstone walls, 0.35 m wide and 1.3 m high. It has been used as an animal pen, although most modern corrals are built of unmortared fieldstone.

**Surface Ceramics**

Some nondescript Brown Ware sherds that were not collected.

**Date**

If this structure is ancient, its position close to the road suggests an LH date.

---

**PV48-98 and 98B**

<table>
<thead>
<tr>
<th>San Vicente</th>
<th>——</th>
</tr>
</thead>
</table>

**Location:** S.M. 8 and 9

**Size:**

- 98B - 2.5 ha
- 98 - 11 ha

**Collections:** 1966, 1968

**Total Sherds:**

- excavations: 6000+
- surface: 1000+

---

**General Description**

This site number has been given to a very large site that includes the hill slope between site 102 and the San Vicente quebrada down-valley, as well as the construction in the quebrada itself. A series of house platforms and agricultural terraces, all covered by thorn bushes, extends along the hill slope for 1 km. All this constitutes site 98B. Site 98 is in the quebrada itself, which has a high, wide fan with a steep drop of 30 m to the river. On the upvalley side of the quebrada the rocks and crags have been eroded naturally into weird shapes, which may account for the mound or huaca's being built there in the first place.

Scheele (1970, p.190) states that the top of the fan is probably artificially flattened. At its west edge is a large platform mound,
50 m in diameter at its base, and 6 m high. To the east of the upper platform of the mound are walled courtyards, some of which have subterranean rooms. Behind the mound and on both sides of the slopes above the water channel are house platforms from 1 to 5 m long, supported by *pirca* retaining walls, 0.80 to 1.00 m high. They extend 100 m into the quebrada. There are also small structures and other platforms between the mound and the water channel. Below the mound and towards the river is a series of agricultural terraces. These are watered by a stone-lined ditch that can be traced from the terraces of 98B. It curves around the water channel and crosses the fan below the mound. Stone-lined run-off channels carry the water from the main ditch to the terraces. The Inca road, coming from downvalley, skirts the mound and then crosses the irrigation ditch, cutting through it in such a way as to destroy its function. The road continues across the water channel and down to the eucalyptus-lined ditch no. VIII, mentioned previously. This ditch crosses the water channel lower down and irrigates the lower terraces on the fan, where maize and other vegetables are now grown.

**Surface Ceramics**

EH sherds around the mound. EIP between the mound and the water channel. A few Brown Ware I, Orange Ware VII and Cuzco-style sherds are in the collections.

**Date** EH. EIP. LH?

Scheele (1970, pp.195-200) placed the site between 1200 and 500 B.C., in the late IP and the early EH. His ceramic analysis showed it to be contemporary with site 352, Cardal, which is in the Manchay sector. There are two radiocarbon dates from Cardal. The mound and a good deal of the platforms can be dated to those periods. According to Earle (1969, Appendix 2) the EIP sherds are
similar to those of site 101, but the extent of the EIP occupation is still uncertain. Scheele (ibidem) found EIP sherds in the upper layers of two of the five pits he dug in and around the mound, which indicates that the mound was still in use then. There may also have been a small occupation during the LH, connected with the building and maintenance of the road and the cultivation of the terraces watered by the lower ditch. There are few sherds on the terraces of site 98B and these are EIP.

**Note:**
1. The radiocarbon dates for Cardal, as quoted by Scheele (1970, p.236) are GX-1623 985±110 B.C. and GX-1622 900±105 B.C.

**Irrigation Ditch VIII**

G.M. 9

This ditch has its source upvalley near site 102. It ends on the lower terraces at site 98 (S.M. 9). The upper, ancient ditch which is unnumbered, must be a continuation of the upper one at site 102, although it was not easy to trace amongst the thorn bushes on the terraces at 98B. Its connection with the mound and terraces at 98 suggests that it dates back to the EH and maybe earlier. In any case, the EIP occupation of 98 is still above the ancient ditch, which is likely to have been in use during that period. The fact that the Inca road cuts through it, and that there is no evidence for any LIP occupation of the area, indicates that the ditch fell into disuse well before the LIP. Certainly during those early periods there would have been no need for a second, lower ditch like ditch VIII. Therefore ditch VIII is probably a later ditch, connected with a late occupation of the north bank of Piedra Liza. It may have been dug when it was no longer possible to bring water to site 98 from far upvalley. The small unnumbered ditch at the
base of the fan (S.M. 9) waters a few hectares of flat land near the river. It is not connected with any site.

PV48-115  San Vicente  --

Location:  S.M. 9  Size:  0.25 ha
Collections:  1966, 1968  Total Sherds: 141

General Description

The site is situated on the west ridge of the San Vicente quebrada above site 98. It begins 10 m above the quebrada floor and extends for 100 m along the small ridge. Earle (1969, pp.63-66) estimates that it has an area of 3200 m² and between 25 and 50 house platforms. There are abundant sherds and worked stone.

Surface Ceramics

EIP sherds.

Date  EIP.

Earle placed it in the latter part of the period because some decorated sherds were related to the late Lima style.

PV48-78  Piedra Liza North  --

Location:  S.M. 9  Size:  1.5 ha
Collections:  1966  Total Sherds: <50

General Description

The site is situated on the fan of a small quebrada, the next downvalley after San Vicente. The fan is short and wide with
a drop of 10 m to the river. The San Francisco ditch (no. IX on
G.M. 9), one of the major ditches for the Huaycán sector, begins
beneath the fan. The site consists of house platforms scattered
over the fan among abundant thorn bushes. Beneath the site runs
the Inca road, which has wended its way down to the river from
site 98. After running alongside the river and beneath the site
for some 300 m it climbs upwards onto the fan keeping above the
San Francisco ditch for a while. It later crosses the ditch and
disappears.

Surface Ceramics

  EIP sherds; Orange Ware VIII and some body sherds with red
  slip and white paint. There is also a Colonial sherd.

Date  EIP.  LIP?

  The bulk of the occupation is EIP. Some LIP occupation is
  likely, given the fact that there is an LIP site, no. 87, just
  across the river (S.M. 9).

HUAYCÁN

PV48-76  --  --

Location:  S.M. 10  Size:  0.50 ha
Collections:  1966  Total Sherds:  <50

General Description

  The site is situated on the small fan of an unnamed quebrada,
500 m downvalley from site 78. It consists of platforms scattered
over the fan, together with two small structures of mortared field-
stone, close to the ditch. There is also a large boulder on which
some kind of Christian shrine once stood. Beneath the site is sloping land, where maize is now cultivated. This land is watered by the San Francisco ditch (no. IX on G.M. 9). The Inca road runs over the fan, cutting through the platforms. It eventually crosses the ditch and disappears into the cultivated land.

Surface Ceramics

Nondescript, except for one EIP rim.

Date EIP?

Above the road are faint traces of what might be an older, stone-lined ditch, which could have been an upper branch of the San Francisco ditch. If this is indeed a ditch, then some of the platforms would be agricultural terraces. Since similar situations of abandoned ditches and terraces have occurred elsewhere, it is likely that the site is EIP, or even earlier. The structures by the current ditch are later and possibly modern.

PV48-70, 72, 74

Location: S.M. 10  Size: <.25 ha
Collections: 1966  Total Sherds: <50

General Description

These sites are of a similar nature and are considered together. Each is situated in a small erosion channel of the many that score the hillside between site 76 and the San Francisco quebrada. The sites consist of platforms built into and around the erosion channel. Sites 74 and 72 each have about ten platforms while site 70 has about five. The size of the platforms varies from 1.5 to 8 m
long and from 2 to 3 m wide. At site 74 the platforms tend to be built on the side of the channel, but at sites 70 and 72 they are built into it, utilising large boulders as the base of the retaining wall which may be over 1 m high.

**Surface Collections**

Brown Ware body sherds; Orange Ware VB, VII and VIII and body sherds with white paint daubed on them. Each site yielded no more than a dozen sherds.

**Date** LIP.

---

**PV48-68**

**San Francisco**

**Location:** S.M.10

**Size:** <0.25 ha

**Collections:** 1966

**Total Sherds:** <50

**General Description**

The site is located on the east slope of the San Francisco quebrada. It is above site 66 which occupies the quebrada floor. It consists of a few walls in poor condition.

**Surface Collections**

Orange Ware sherds, one with white panels on a red slip.

**Date** LIP?

The sherds are undiagnostic, but given the fact that site 66 is LIP, it is likely that these walls are part of the same settlement. The paste and general appearance of the sherds do not contradict such an assumption.
The site is situated on both sides of a deep water channel. Only part of the eastern half was mapped, for the structures are not continuous. In front of the quebrada runs the San Francisco ditch which irrigates fruit trees, maize and vegetables planted on some ill-defined terraces. At the back of the quebrada is a sheer rock wall worn smooth by flowing water. A huayco has carved out a subsidiary channel between two buildings on the site plan. It has covered the floor of the patio group with coarse sands, making it difficult to ascertain the original floor level.

The site was divided into two sectors.

**Sector I**

This is the west side of the main water channel. It comprises:-

- One group of nine house platforms.
- One room cluster with a total area of 159 m$^2$. There are only three rooms whose walls are still their original height, between 1.50 and 2.25 m. They are mortared, plastered and were probably once painted red.
- Two oval semi-subterranean pits. These are to the south of the room cluster.
- Another structure whose walls are in very poor condition.

**Sector II**

This is the east side of the main water channel. It comprises:-
Several house circles. These are often built against the large boulders on the quebrada floor.

Two large courtyards (A and B on S.P. 6) over 100 m². The northern one has two compartments, 1.25 m², attached to its north wall against the hill.

One patio group (C on S.P. 6) between the two courtyards. Its area is 378 m². It has several rooms and courtyards whose size range from 6 m² to 123 m². The building has been constructed on different levels and the largest courtyard has a bench running around its north and east walls. There are two oval pits outside this structure.

Surface Ceramics

Both sectors yielded few sherds. One Orange Ware sherd had a cane-stamped circle on it. There are also Orange Ware VII and some white on orange body sherds.

Date   Probably LIP.

This date is suggested on architectural grounds in the absence of clear ceramic evidence. The layout of the patio group resembles those at other late sites. If it had been LH, some Brown Ware I should have been found.

PV48-64

Location: S.M. 11
Collections: 1966

Size: <0.25? ha
Total Sherds: <50

General Description

This site is situated on the lower eastern slopes of a small,
nameless quebrada. It consists of house platforms whose average size is 6 m². The San Francisco ditch runs beneath it, watering a few fruit trees growing on terraces which need repairing. These terraces are a continuation of the set downvalley at sites 62 and 60.

**Surface Ceramics**

EIP sherds. Some Orange Ware VC and IX.

**Date**

EIP. LIP.

A similar mixture can be found on the terraces of sites 60 and 62. It would appear that the occupation of this area was continuous from the EIP to the LIP.

### PV48-60 and 62 | San José | S.P. 7A & 7B
---|---|---
**Location:** S.M. 11 | **Size:** 3 ha | **Collections:** 1966, 1978 | **Total Sherds:** 50

**General Description**

These site numbers were given to the agricultural terraces that extend from the San Francisco quebrada to the San José quebrada. The dividing line between sites is a break of 50 m, where the slope is only 10 degrees from the vertical and too steep for terracing. The San Francisco ditch waters these terraces. Below them runs the Molle ditch (no. X on G.M. 9), which waters the flat land near the river and the fans of quebradas downvalley. Only the terraces in good condition at site 60 were mapped, so that the following description applies mainly to these.

The terraces extend for approximately 1 km along the slope and from 30 to 40 m between the two ditches. The distance between the
ditches on the terraces mapped is 30 m. Further upvalley, the distance is greater, so that a conservative estimate of the total area covered by terracing would be 3 ha. Some of the lower terraces are as much as 80 m long, but the upper ones are usually shorter, from 10 to 30 m long. The height of the retaining walls varies from 0.50 m, for a small terrace enclosed within a larger one, to 2 m for those on the lower slopes. These latter terraces are wider than the upper ones: 4 to 6 m as against 1 to 2 m.

There are approximately 20 to 25 levels, but these are not related to one another in neat lines, as S.P. 7A and 7B show. Large boulders are left in situ and the terraces are built around them. The ground can only have been partially levelled, for there are many terraces built at right angles to the main ones, forming subsidiary platforms that follow the contours of the slope. The terraces are all built of unmortared fieldstone, with the exception of a retaining wall above the San Francisco ditch, which has a mortared parapet.

The terraces are divided by access walls that run perpendicular to them down the slope. The interval between walls ranges from 30 to 47 m and averages 36 m. These walls are very ruined and were once between 0.75 and 0.80 m wide. They are currently between 0.20 and 0.57 m high. In addition, there are other shorter walls running downslope along only four or five terraces. These exist chiefly to accommodate the construction of the terraces to the lie of the land and to help bring down small run-off channels from the San Francisco ditch.

At this point the ditch is from 0.50 to 0.80 m wide. It was once lined with stones, but many of these have been removed, so that only a small section remains paved. Occasionally there are large stone slabs placed across the ditch as small bridges. One of these is 1 m long and 0.88 m wide. Run-off channels from the main ditch were
dug out on the terrace side, so as to allow water to pass onto the terraces when required. These channel openings were not large: about 0.20 by 0.30 m, and they could easily have been blocked by a single stone, much as is done today when water is to be directed elsewhere. Most of these openings are now silted up, because the terraces have not been used for some time, except for those around the actual quebrada of San José, where a local peasant is growing maize.

The run-off channels continue down over the terraces in several places, but there is no single set that continues all the way to the bottom. Instead, one finds from three to five channels grouped on adjacent terraces and the next set tens of metres away. These channels are about 0.20 m wide and between 0.10 and 0.20 m deep. They are stone-lined, the sides being constructed of larger stones than the base.

The 1966 survey team found only tree stumps on the terraces. Nonetheless, since the 1969 land reform act, an attempt has been made to grow fruit trees: apples, quince, pears and limes on the terraces of site 62 and some of site 60. In 1978 the trees on the latter were growing wild and the home of their cultivators, a small cane shack shown on S.P. 78, had been abandoned.

Six terraces above this shack is a small tomb. It covers the width of the terrace and has three compartments about 1 m wide. These are rectangular and have plastered walls, now 0.50 m high. On the terrace above the tomb were some camelid bones.

If one examines the Molle ditch carefully, one finds traces of former ditches close to it. There is one closer to the terraces that has silted up and whose outline is barely recognisable. This is probably the oldest ditch. Closer to the cliff, which drops 10 m to
the river, are the remains of an outer one which has been eroded. Such erosion has caused its course to be altered inwards.

There is no trace of the Inca road which was last seen after site 76 upvalley. It probably ran just above the present Molle ditch, where there is a wide, flat expanse of land. There are no traces of such a road above the San Francisco ditch, or on the flat near the river.

**Surface Ceramics**

- EIP sherds; Nievería; Brown Ware I; Cuzco-style fragments; Orange Ware VA, VII and VIII, also body sherds with white vertical panels on a red slip. The EIP sherds are found all over the terraces.

**Date** EIP. LH.

It is likely that these terraces were built during the EIP, subsequently abandoned, and later used as dwelling platforms during the LH. There are other possibilities, but bearing in mind the pattern seen at sites 107 and 98, it is unlikely that such a major construction project was initiated and completed during the short time span of the LH.

Another reason for placing them in the EIP is the existence of a large EIP site, no. 58, which is situated on the west side of the San José quebrada above the terraces (S.M. 11). There is no large LH site nearby, either on the slope or in the neighbouring quebradas, the nearest such sites being 28 and 57 (G.M. 3). In addition, these terraces are better constructed than those associated with LH sites, such as at 104 and 136. The terraces at the latter sites lack elaborate run-off channels. On the other hand such a feature is found on the early terraces at site 98 upvalley.
There is also the evidence of the tomb. It is possible that it could be a tomb in honour of the *huaca* to whom the terraces and their produce were dedicated. However it would be unique in the study area and the valley to place such a tomb on agricultural terraces in use. Normally above-ground tombs with rectangular chambers are placed on hill slopes well away from agricultural land, such as at sites 28, 57, 84 and 113. If a tomb is placed on terraces, it is likely they are no longer in use. It will be seen that a similar situation occurs at site 108 on the opposite bank of the river, where tombs are also built on former agricultural terraces and across abandoned ditches. It is therefore probable that during the LH a few families lived on the former agricultural terraces in order to cultivate the land below the Molle ditch.

**PV48-58**

--

Location: S.M. 11  
Size: 0.50 ha  
Total Sherds: 284

**General Description**

See Earle, op. cit., pp.66, 74, 76-77. The site is located on the summit and slopes of a small spur that separates the San José quebrada from a small one downvalley. The San Francisco ditch runs in front of it and ends abruptly around the corner of the next inlet. Earle estimated that there were from 25 to 50 platforms. These were about 2.5 m long and 1 m wide at the top of the ridge, and 10 to 15 m long and 2 to 3 m wide on the lower slopes. On the summit of the ridge are two or three compounds. These are defined as long rectangular structures divided into 8 or 10 rooms arranged in two rows.
The average size of these rooms was 6 m$^2$. Similar compounds are found at sites 26, 34 and 106.

**Surface Ceramics**

EIP sherds; Nievería.

**Date** EIP and early MH.

---

**PV48-34**

<table>
<thead>
<tr>
<th>Location:</th>
<th>S.M. 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size:</td>
<td>0.50 ha</td>
</tr>
<tr>
<td>Collections:</td>
<td>1966, 1968</td>
</tr>
<tr>
<td>Total Sherds:</td>
<td>43</td>
</tr>
</tbody>
</table>

**General Description**

See Earle, op. cit., pp.66, 76. The site is situated on the east ridge of the Molle quebrada. It overlooks the latter as well as the next small quebrada upvalley. Earle estimated that there were from 25 to 50 house platforms, whose retaining walls were less than 1 m high. On the summit of the ridge were some compounds similar to those described for site 58.

**Surface Ceramics**

EIP sherds; Brown Ware III, Orange Ware, VB and X, together with a ring base and a loop handle.

**Date** EIP. LIP.

Patterson had the impression that some sherds were related to Lima 9, which is MH. The fact that there are later sherds suggests that the site was occupied continuously from the EIP to the LIP.
PV48-30 Molle

Location: S.M. 12
Collections: 1966

General Description

The site is situated on the floor of the large Molle quebrada, close to the eastern water channel. There are two sectors, which may well belong to different time periods. At the back or north of the site is a small mound which consisted of three platforms. Its area is 1750 m\(^2\) and it is from 4 to 5 m high. It appears to be constructed of double walls, that is, two rows of stones, filled with rubble. Most of the mound has collapsed into a pile of debris.

The second sector is in front of the first and is separated from it by a large double wall about 1 m wide. The sector consists of a ruined patio group, rectangular in shape, and about 25 to 30 m long and 10 m wide. It is divided into rectangular courtyards and rooms, some of which have oval, stone-lined pits in them. These pits are between Q70 and Q80 m in diameter and 1 m deep. The original height of the plastered walls was about 2 m. There are traces of benches around the walls of some rooms. This sector has been destroyed by various huaycos in recent centuries.

Surface Ceramics

Patterson saw the original collection, which is missing at present. He stated in his field notes that some sherds were early and some were late.

Date EH? LIP?

The front sector of the site should be post-EIP on architectural and locational grounds. Its shape and construction is reminiscent
of other patio groups in the study area. Furthermore, in no part of the study area is there any EIP construction on the quebrada floor in the potential path of a huayco. The dating of the mound is more difficult. The 1966 survey team could find no sherds on it, a situation common to all EH mounds in the valley (cf. Scheele 1970, p.158). Mound construction in the study area is non-existent after the EH, so that it probably dates to that period. The lack of Brown Ware I implies that neither sector is LH.

PV48-26	Molle	--

Location: S.M. 12	Size: 0.25 ha
Collections: 1966, 1968	Total Sherds: 52

General Description

See Earle, op. cit., p.66, 74, 77. The site is situated on the slopes and summit of a small spur on the west side of the Molle quebrada. It is directly above site 28. Earle estimated that there were some 50 platforms, 4 m$^2$ with retaining walls 0.80 m high. Further down the slope, and behind site 28, there are a few wider platforms, 16 m$^2$, whose retaining walls rise above ground level, thus forming small rooms. These walls are mortared and were once plastered.

Surface Ceramics

EIP sherds.

Date EIP.

Earle placed the site in the latter part of the period.
General Description

The Molle quebrada is the largest in the study area. If one follows it back into the hills, one eventually arrives at the Rimac valley, which is 11 kins away as the crow flies. There is a track marked on the older IGM map. This would lead to the ruins of Huaycán de Pariachi, which are similar to those of site 28.

The site is situated at the western edge of the quebrada on a small promontory that drops a few metres to the Molle ditch beneath. Since the site was abandoned, a huayco has come down a small lateral quebrada and deposited sandy alluvium over much of sector I.

The area is almost continuously covered with structures, except for a gap that separates sector I from sector II and an isolated wall at the west end. As with other late sites, there appears to be no planning behind the whole or its parts, for the buildings have grown by accretion rather than in accordance with an architect's design.

Most structures are rectangular, but many of the walls curve along both their length and height.

The site has been divided into two sectors.

Sector I

This is the west half of the site. It comprises:—

One fieldstone wall at the west end. It is separated from the rest of the sector by a 60 m expanse of empty terrain. It extends around a corner and may have been the beginning of a courtyard.
Three room clusters two of which are in poor condition because of the huayco. The rooms are more rectangular in shape than those of clusters at 137 and 164. The best preserved has an average room size of 26 m² with a range from 8 to 56 m². The rooms contain a variety of features that are common to most room clusters. These are blocked doors, subterranean compartments, projecting stones and niches.

Two cemeteries located on opposite hill slopes. Both consist of groups of small, rectangular, above-ground chambers. The southern group has a minimum of 41 tombs and the northern group has six tombs. The average size of the tombs is 3 m².

Surface Ceramics

Brown Ware I and III; Orange Ware VIII and IX, together with body sherds showing the snake design, cane-stamped circles and white paint on a red slip. Dark Brown Ware II and IV; Cuzco-style and Black Ware sherds. EIP sherds brought down from above by huaycos.

Date LIP. LH.

Sector II

This includes all the east portion of the site. It comprises:-

One patio group. This consists of two large courtyards with areas of 713 and 396 m² and an attached room cluster. One of the courtyards has a wide bench and the other a wall frieze.

Two room clusters to the east of the patio group. One is in better condition than the other and contains numerous compartments, pits, blocked doors, niches, stairs and other features.
Several rooms that once formed part of room clusters. They are in poor condition and it is impossible to distinguish the outlines of individual clusters. One room (marked x on S.P. 8) contains two pairs of tapia columns which are neatly plastered. There is abundant human bone in this room.

One group of tombs to the south of the ruined rooms. There are three rectangular chambers with an average size of 8 m². Nearby are some oval, stone-lined pits which are also tombs. These are between 1 and 2 m in diameter.

Surface Ceramics

The same as Sector I.

Date LIP. LH.

General Discussion

This is the only large, late site on the north bank of the study area between San Martín and Molle. Its layout and architectural features generally resemble those of the Sisicaya sites, except that the walls at 28 have several coats of plaster, unlike most walls at Sisicaya. It is doubtful that this difference is entirely due to the greater amount of rainfall upvalley, which might have worn away plaster in Sisicaya. It is possible, however, that there are less alluvial silts there than in Huaycán, and that therefore plaster was not used as much. In layout site 28 resembles three sites on the south bank: 35, 57 and 71. Like the first two mentioned, it possesses wall friezes and tapia construction, features not found upvalley. What is lacking at site 28 are the house platforms and circles seen upvalley. Those above the site are clearly EIP and are part of site 26. Possibly further reconnaissance will discover such
platforms among the boulders on the floor of the Molle quebrada.

At present there is no distinction between sherds found in different sectors or rooms. Consequently, it is assumed that most buildings were started in the LIP and continued during the LH. According to a local huaquero, the pit tombs are older than the rectangular above-ground chambers, but the few sherds associated with the former were not diagnostic enough to confirm this supposition.

OTHER SITES

PV48-44, -46, -47, -48  --  --

Location:  S.M. 12 a-x1 G.M.3  Size:  0.15 to 0.90 ha
Collections:  1966  Sherds:  Abundant

General Description

These four sites are outside the study area. Nevertheless, since they are situated on the west side of the Molle quebrada, it seems worthwhile mentioning them. Earle (op cit., Appendix 2) considered them to be badly mixed sites occupied over a long time period. However my cursory examination of the 1966 collection did not disclose any late sherds.

Site 44

This is situated on the floor and slopes of a small quebrada that is separated from site 28 by a spur, 30 m high. Earle (op. cit., p.65) estimated the total area as 1500 m². The site consists of platforms on the south side of the quebrada. These rise to a height of 30 m above the floor. In the centre of the quebrada is a mass of rubble
with a concentration of sherds. In front of the rubble are the remains of a building whose plastered walls are over 1 m high. On the north side of the quebrada are a couple of rectangular, above-ground tombs. According to Patterson, the sherds are related to the early and middle Lima style, and therefore the site dates to the EIP. However the plastered structure and the tombs suggest that there may be a later component.

Site 46 and 47

These are situated on the slopes of the last of the lateral quebradas that border the large Molle quebrada. Site 46 is on the north side and occupies an area of 1500 m². It consists of platforms similar to those of site 44. They reach a height of 40 m above the quebrada floor. Site 47 is about 9000 m² and extends higher up on the slope. It also consists of house platforms supported by fieldstone retaining walls. According to Patterson, the sherds for both sites can be related to Lima phases 7 to 9, which would place the sites in the late EIP and early MH.

Site 48

This site consists of house platforms situated on the hill slope, 100 m above the modern bridge that crosses the Lurín. Its area is less than 0.25 ha. There were no diagnostic sherds, but the situation of the site and its proximity to other EIP sites suggest a date in that period.

Note:

There is another site, as yet unsurveyed, on the peak 150 m above the valley floor. This peak dominates the Molle quebrada and
the surrounding area and should give a commanding view downvalley. Local peasants have pointed the site out to me. Its location suggests that it dates to the EIP.

Ditches IX and X

Mention has already been made of these two ditches which both water the north bank of the Huaycán sector. The upper ditch, known as San Francisco, begins beneath site 78 and ends at site 58. According to Arenas and La Rosa (1973, p.29), it is 2 km long, but this measurement refers only to the section in use today, which terminates at a point just past the San Francisco quebrada, where site 66 is located. The ditch was originally another kilometre long in order to water the terraces at sites 60 and 62, but the very last section, beyond site 58, seems never to have been used, for there are no terraces beneath it and only the bare outline of a ditch can be seen on the slope. Certainly the last section was never stone-lined, as it is around the terraces at 60. The ditch is associated with EIP sites, particularly the large site at 58, which was occupied until the MH. Therefore construction must have ended in that period.

The Molle ditch, no. X, begins below site 66 and ends just before the modern bridge over the river. According to Arenas and La Rosa (ibidem) it is 2.3 kms long, although this seems an underestimate when compared with my own observations and its length on the IGM 1:1000,000 map. As stated in the discussion on sites 60 and 62, its course has been changed slightly over the years. It may also have been changed around site 28, where it cuts through some ancient walls to the east end of the site. It
was probably in use from the EIP onwards and no section seems to have been abandoned during any period, as happened with ditch no. IX.

Notes:

1. From February to April water flows to site 60, where a local peasant is rehabilitating some of the terraces. This has only occurred since the 1969 Land Reform Act.

Summary of the North Bank Settlement.

The following is a loose classification of sites by period and general type.

<table>
<thead>
<tr>
<th>The Early Horizon</th>
<th>G.M. 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definite</td>
</tr>
<tr>
<td>Habitation sites</td>
<td>1 (169)</td>
</tr>
<tr>
<td>Ceremonial sites with some habitation</td>
<td>1 (98 and 98B)</td>
</tr>
<tr>
<td>Ceremonial sites without habitation</td>
<td>-</td>
</tr>
<tr>
<td>Hilltop</td>
<td>-</td>
</tr>
</tbody>
</table>

Total sites: 6
### The Early Intermediate Period and early Middle Horizon

<table>
<thead>
<tr>
<th></th>
<th>Definite</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitation</td>
<td>19*</td>
<td>1 (76)</td>
</tr>
<tr>
<td>Habitation with hilltop fortification and/or ceremonial structures</td>
<td>9 (161,165,137, 103,105,115, 58,34,25)</td>
<td>-</td>
</tr>
<tr>
<td>Agricultural terraces</td>
<td>3 (124,60,62)</td>
<td>-</td>
</tr>
</tbody>
</table>

Total sites: 32

* These are: 164,159,173,171,169,160,158,134,132,130,128,126,99, 101,107,102,98 and 988, 78,64.

### The late Middle Horizon and Late Intermediate Period

<table>
<thead>
<tr>
<th></th>
<th>Definite</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitation</td>
<td>4 (160,354,105, 102)</td>
<td>12 (161,173,165, 158,101,78, 74,72,70,68, 64,34)</td>
</tr>
<tr>
<td>Habitation with room clusters and/or patio groups</td>
<td>8 (164,159,169, 167,137,135, 66,28)</td>
<td>1 (30)</td>
</tr>
</tbody>
</table>

Total sites: 25
### The Late Horizon

<table>
<thead>
<tr>
<th></th>
<th>G.M. 7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definite</strong></td>
<td></td>
</tr>
<tr>
<td>Habitation</td>
<td>3 (102,60,62)</td>
</tr>
<tr>
<td>Habitation with room</td>
<td>6 (164,137,136, 135,169,28)</td>
</tr>
<tr>
<td>groups</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
</tr>
</tbody>
</table>

**Total sites:** 17

### The Colonial Period

<table>
<thead>
<tr>
<th></th>
<th>G.M. 8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definite</strong></td>
<td></td>
</tr>
<tr>
<td>Habitation</td>
<td>4 (164,137,136, 135)</td>
</tr>
</tbody>
</table>

**Total sites:** 5
CHAPTER FOUR

THE DATING OF THE SOUTH BANK SITES

This chapter is organised in the same way as the previous one, but the sites are taken in reverse order: from west to east.

HUAYCÁN

PV48-35 Panquilma S.P. 9

Location: S.M. 13 Size: 22 ha
Collections: 1966, 1968 Total Sherds:

General Description

The site is situated on the floor and lower slopes of a wide quebrada, directly south of the modern bridge over the river. A branch of ditch XI, which is the major ditch for the Huaycán sector on the south bank, runs in front of the site. This branch is now dry from sites 57 to 35, although formerly it watered some cultivated land near the river. In fact, the 1962 air photo shows that a good deal of this land was monte, but since then new roads and houses have been built over it, creating the Lima dormitory suburb of Cieneguilla. This suburb obtains its water from wells, not the river.

In front of the site and above the ditch is a rubble embankment, 0.50 to 1.00 m wide and 1.5 m high. A small plastered wall with interior recesses backs onto it. This wall is certainly ancient, although the embankment appears to have been built in this century.
to protect modern housing from the effects of any huayco. Although these are rare, several have overrun the quebrada in recent centuries, burying many structures in the centre of the site. This part appears blank on the site plan, but it was once covered with buildings whose shape is difficult to discern without proper clearance. There is no deep water channel to direct the flow of a huayco and therefore sands and silts cover a greater portion of the site than they do upvalley.

The site has been divided into two sectors.

**Sector I**

This is the western half of the site. It comprises:-

One patio group with a minimum area of 3770 m². It contains large courtyards with ramps leading to open rooms on a higher level. Other rooms have subterranean and above-ground compartments. The largest courtyard is 387 m² and the smallest room is 22 m². A test pit was placed near the southwest wall of this structure.

Two patio groups in embryo form. One close to the embankment is 1833 m² and has no interior rooms. The other, to the west of the excavation, is 1592 m² and has some rectangular subdivisions. The latter appears to have been in the process of construction when the site was abandoned, since only the foundation stones are in position and there is no debris to indicate that the walls were ever higher.

Several room clusters whose full extent cannot yet be ascertained. Some are visible on the plan to the northwest of the first patio group mentioned.

A minimum of twelve tomb groups to the southwest of the site. These are rectangular or quasi-oval chambers of mortared fieldstone, some of which have plastered walls. They range from 3 to 9 m².
One well-constructed set of platforms to the west of one of the patio groups. They cover an area of 1110 m² and rise some 10 m above the quebrada floor. They are between 1 and 2 m high and 4 and 7 m wide. The wider platforms are divided along their long axis by a small step.

Other sets of platforms not mapped.

Several pit tombs not mapped at the south end of the sector.

These are stone-lined, oval in shape and from 0.75 to 1 m deep.

Surface Ceramics

Brown Ware I, II, III; Dark Brown Ware II, III, IV; most Orange Ware forms: Cuzco-style and Black Ware sherds.

Date LIP. LH.

The LH forms are associated with the structures on the quebrada floor, but are found above the huayco deposit, so that their association with any particular structure cannot be taken for granted. The excavation close to the large patio group revealed LIP and LH forms and there are signs that the patio group itself underwent re-modelling, e.g. the blocked doorways and changes in entry level. Therefore the structure is likely to have been started in the LIP. The patio group and platforms to the west of the excavation were almost devoid of sherds. Some of the above-ground tombs had Brown Ware I and Cuzco-style sherds associated with them, but the majority had LIP sherds, such as Brown Ware III and Orange Ware VC and VD. A small collection taken from around the pit tombs yielded Brown Ware II and VI, which supports the huaquero's observation that these tombs are earlier.
Sector II

This is the eastern half of the site. It comprises:

- **One patio group** at the southeast end of the site. It is divided into large courtyards and has an area of 580 m².
- **Several room clusters** on the quebrada floor and lower slopes. It was not possible to define their boundaries, except for one cluster at the front of the site. This cluster had an area of 294 m². Tapia columns and wall friezes were noted in this sector.
- **Several sets of platforms** that rise as much as 20 m above the quebrada floor. They have no cultural material on them.
- A **minimum of 10 tomb groups** at the southeast end of the sector, near the patio group. There are also some pit tombs, a row of which has been marked on the site plan. In front of one retaining wall near the tombs is a looted cache of camelid bones.

**Surface Ceramics**

The same as for Sector I with the addition of some EIP sherds.

**Date**  EIP. LIP. LH.

The EIP sherds come from the southeast part of the site near the tombs, although they are not specifically associated with these. Near these tombs there is a small inlet in the hill slope where there is a group of platforms marked terrazas on the site plan. The associated sherds are Brown Ware IX, and Orange Ware VC and VI, which suggests that these platforms and some nearby tombs belong to the LIP. Similar assemblages come from tombs further to the south with the addition of a few Brown Ware I and Cuzco-style sherds. Therefore the tombs have been used over a period of time. The structures on the floor at the front of the quebrada yielded mostly LH sherds, but they are likely to date back to the LIP because they have been remodelled.
General Discussion

The quebrada of Panquilma has a long occupation history. During the EIP there was a small settlement, probably at the back of the quebrada around the ruined platforms. This expanded throughout the MH and LIP when plastered room clusters were built on the quebrada floor. During these periods people were buried in the room clusters as well as in small tomb groups on the lower hill slopes. Earlier inhabitants were probably buried in pit graves roofed with stone slabs. During the LH an impressive patio group at the south-east of the site was built and/or extended. Of all the patio groups in the study area this one most resembles those at Pachacamac, since at both sites these structures have long ramps, open courtyards on several levels and vertical wooden posts to support a canopy. There are abundant looted burials in the Panquilma patio group, some of which yielded fragments of elaborately woven textiles. Other patio groups were probably started in this period, but never completed. Because the site has suffered extensive flood damage, it is not possible to separate LIP clusters from LH ones. However, none had a rectangular perimeter, as is seen upvalley.

PV48-33

Location: S.M. 13
Size: 0.25 ha
Collections: 1966
Total Sherds: 89

General Description

The site is situated in a small inlet on the south side of a wide-mouthed quebrada. It consists of room clusters on the floor and lower slopes of the inlet. The clusters are similar to those
at site 35 and have plastered walls which may reach 2 m in height. There are subterranean compartments and pits in some rooms. The pits are about 1 m in diameter and 1 m deep. Some of the compartments are plastered and all are stone-lined. There are several tomb groups behind the cluster on the hill slope. Human bones were found in all parts of the site, together with textile fragments, sherd and plant remains.

Surface Ceramics

Brown Ware II, VIA, VIB, and IX; Dark Brown Ware I; Orange Ware VB, VC, VD, and VI.

Date LIP.

| PV48-31 | -- | -- |
| Location: S.M. 13 | Size: 4 ha |
| Collections: 1966 | Total Sherds: 114 |

General Description

The site covers the floor and northern slopes of the wide-mouthed quebrada mentioned above. Along the slopes there are two sets of platforms and at least five tomb groups. Most of the latter are made of mortared fieldstone and are unplastered. Their walls curve slightly inwards to give a "beehive" profile. At the east of the site are a small room cluster with plastered walls and some tomb groups with rectangular chambers, which extend some way up the slope. The centre of the quebrada floor is covered with house circles, some of which have stone-lined pits and milling stones. Sherds from cooking and storage vessels, textile fragments and some plant remains were found associated with all structures.
Surface Ceramics

Brown Ware II, III, IV, VIA and VIB. Orange Ware VB, VC, VD, VIIB and VIII.

Date LIP.

PV48-51

Location: S.M. 13  
Size: 0.50 ha  
Collections: 1966  
Total Sherds: <50

General Description

This site is situated at the tip of the ridge that separates the quebrada with sites 31 and 33 from the next quebrada upvalley. It consists of platforms with fieldstone retaining walls. The platforms are from 1 to 2 m apart. At the crest of the hill are some freestanding walls that enclose small rectangular rooms. A wall extends down the slope to the next quebrada.

Surface Ceramics

EIP rims; Brown Ware VIB, VII; Orange Ware VD, VIIB.

Date EIP. early LIP?

PV48-53

Location: S.M. 14  
Size: 0.25 ha  
Collections: 1966  
Total Sherds: <50

General Description

The site is situated on the south slope of the next quebrada
upvalley. It consists of house circles and oval depressions similar to those noted at site 31. Some depressions are 1 m in diameter and 0.76 m deep. There are also some small stone-lined pits. Sherds were found in and around the depressions.

**Surface Ceramics**

Orange Ware VB and VIII. There are a few Brown Ware sherds.

**Date** LIP.

---

**PV48-54**

---

**Location:** S.M. 14  
**Size:** 0.25 ha

**Collections:** 1966  
**Total Sherds:** 50

**General Description**

The site is located on the floor and northern slopes of the same quebrada as site 53. The original survey team did not clarify the separation between the two sites which are probably part of the same occupation. There is a minimum of four house circles on the quebrada floor. These are 2 m in diameter with walls 1 m high. There are some platforms and randomly placed freestanding walls on the lower slopes. Sherds were scarce.

**Surface Ceramics**

Brown Ware II; Orange Ware VII and body sherds with white paint.

**Date** LIP.
PV48-55

Location: S.M. 14  
Size: 2 ha
Collections: 1966, 1968  
Total Sherds: 143

General Description

See Earle, 1969, pp.63-69; 72-73 and Appendix 3. He divided the site into three sectors. Two are on the hill slope facing the road and a third 100 m above on the crest of the ridge. The site consists of house platforms and freestanding walls, similar to those at 105. There are also walls running across the saddle, as if to cut off the ridge from the hills behind. All these walls are in poor condition.

Surface Ceramics

EIP sherds.

Date EIP.

Earle placed it in the early part of the period.

PV48-56

Location: S.M. 14  
Size: 1 ha
Collections: 1966  
Total Sherds: <50

General Description

The site is situated on the edge of the alluvial fan of the Huaycán quebrada. Beneath the site the fan drops some 10 m to the pine-bordered irrigation ditch below. The site is close to Sector III of site 57 and an old road runs in front of it. At one point in the road there is a huge pit, some 10 m deep, as if an attempt had been made to dig a well. South of the site and marked on S.M. 14 are the
small quarries used to obtain plaster for walls. The site consists of a large rubble mound which may have had arms or wings. There are traces of walls in and around it. Some of these are double, as described for site 30. There are very few sherds and no other cultural material.

Surface Ceramics

Nondescript except for one neckless olla rim (cf. fig. XCVII j, k).

Date  EH?

It has been assigned an EH date on architectural grounds. The general appearance of the rubble mound is not unlike that of the mounds at sites 98 and 30 (q.v.), or those downvalley excavated by Scheele, although the latter are variants of U-shaped structures. If the site were later, it should have some diagnostic sherds. On the other hand, EH mounds rarely have surface sherds, and one has to excavate deep into the fill to find them (Scheele 1970, p.158, 163-167, 181-189 and 192).

PV48-57  Huaycán  S.P. 10

| Location:  | S.M. 14 | Size: | 18 ha |

General Description

The ruins are spread over most of the lower eponymous quebrada and once extended to the edge of the alluvial fan above the modern road. At the south end of the site the main water channel is not as deep as those upvalley. However, as it approaches the road it has cut deeply into the alluvial fan, so that the site is from 10 to 15 m above the
channel. A branch of ditch XI crosses the road at the front of the site and continues to Panquilma, although this section is now dry. Another upper branch extends into the village. It has been lined with concrete and is unlikely to have been in use during pre-Columbian periods.

The modern village of Huaycán has encroached upon the north part of the site (Sector I on S.M. 14) and destroyed most of the structures there. Local informants said that the village used to be at the foot of the alluvial fan and close to the road during the Colonial Period. The people were dispossessed of their lands by the owner of the Cieneguilla hacienda, who forced them onto the ruins, which they have been obliged to destroy in order to create land for dwellings and garden plots. Some of Sector I near the village has been fenced off, as is shown on S.P. 10, but an even larger area has been lost for ever.

With regard to the rest of the site, construction is fairly continuous along both sides of the water channel for about 600 m. A variety of building materials has been used. These include tapia blocks, adobes and fieldstone. The site has been heavily looted and burnt in places. This is particularly noticeable in some of the larger rooms of Sector II, which were cleared by Alberto Bueno in the early 1970s.

The site has been divided into four sectors.

**Sector I**

This includes everything northeast of the water channel from the modern road to the brick wall. It comprises:-

Several room clusters and attached courtyards in very poor condition. The outlines of these are difficult to ascertain because of modern settlement and rubbish. Some rooms are well over 20 m² and some have pits.
Part of an old track that crossed the water channel from Sector III. It disappears amongst the ruins but was probably the ancient road for the south bank.

Surface Ceramics

Brown Ware II; Orange Ware VB, VC and VII.

Date LIP.

The absence of any certain LH form suggests an LIP date, although the buildings could well have been in used during the LH.

Sector II

This includes everything southeast of the brick wall as far as the southeast boundary wall of the large room cluster.

It comprises:-

One very large room cluster attached to apparently self-contained patio groups. It covers an area of 2.3 ha. Only the outlines of the cluster appear on the plan, together with the sections cleared and restored by Alberto Bueno. A detailed plan of these appears in Bueno, 1978a, pp.60-70. At present there is no visible separation between groups of rooms contained within the outline on S.P. 10. Therefore it is assumed that they all belong to the same cluster. The single rectangle in the south of the cluster marks a room with a wall frieze.

The cleared and restored sections consist of the following:-

Conjunto de los Nichos (marked A on S.P.10)

This complex has 19 rooms with an average size of 31 m². Three of these are large courtyards and the rest are small rooms that form a labyrinth off an upper courtyard. In these smaller rooms there are many niches, benches and roofed passageways.
Conjunto Ornamentado (marked B on S.P.10)
This consists of four self-contained rooms that are entered by a narrow corridor off a major passageway. Two of the rooms are large courtyards with ornamental wall friezes. Between the courtyards are several narrow compartments used as tombs. The average size of these compartments is 4.5 m². One compartment is reached by a narrow roofed passageway.

Conjunto de las Ventanas (marked C on S.P.10)
This is a complex of large rooms and courtyards which can be entered by a passage from the hill side or from the centre of the whole cluster. The centre courtyard measures 272 m² and has adobes in its walls. Two of the doors leading from it have a trapezoidal shape. One of these doors leads to a narrow L-shaped passage that ends at an entry room close to the hill slope. This room has five large windows. Other means of exit from the central courtyard are low ramps on two sides that lead to open courts on a slightly higher level.

The rest of the cluster consists of a maze of rooms with various features, such as benches, niches, blocked doorways, subterranean and above-ground compartments used as tombs, and ornamental wall friezes.
Also in this sector are:-

Two sets of platforms on the hill slope to the east of the cluster. These are supported by well-built retaining walls, each platform having an area of about 100 m².

A large courtyard to the northwest of the room cluster and the sets of platforms.

Several tomb groups on the hill slopes. These are semi-
subterranean, with an oval shape and overlapping roof slabs that give a "beehive" effect.

Surface Ceramics

Brown Ware I, III, IV; Dark Brown Ware II; Orange Ware VA, VB, VC, VII, VIII, X, XII and XIII; Cuzco-style and Black Ware fragments.

Date LIP. LH.

The three complexes that form part of the main room cluster all yield similar sherds, particularly LH forms. When Bueno cleared them, he found two complete LH vessels illustrated here in figs. I a and LXXXVI b:-- the Brown Ware I vessel and the owl-neck jar. It is likely that the fish that he illustrates (1978a, p.66) also dates to the LH, since it is similar to one illustrated by Uhle from the Temple of the Sun at Pachacamac (1903, plate 18, fig. 11). There is also the architectural evidence of the Conjunto de las Ventanas: the massive trapezoidal doors and large windows, which are attributable to Inca influence, as is the use of adobes in the large courtyard. Therefore the three complexes date to the LH. On the other hand, earlier LIP sherds are evident in the outlying rooms of the cluster, so that a good portion of it was begun in the LIP and probably extended during the LH. There are no diagnostic sherds on the large platforms or isolated courtyard. The sherds from the tombs on the hill slopes are LIP, for they include Brown Ware VI, IX and XI and Orange Ware VB and VI.

Sector III

This includes everything on the south side of the water channel. It comprises:
Several room clusters between the old road and the track marked on the site plan. Only the outlines of these have been plotted. To their east is an area of very destroyed walls. One courtyard with an area of 1296 m² and a trapezoidal shape. It has been marked out with the foundation stones of the intended walls.

One courtyard partly marked out. It has a small room in one corner which contains tombs. The courtyard is 280 m².

One room cluster 980 m². There are 21 rooms with an average size of 43 m².

A set of platforms to the southeast of the above cluster.

Several tomb groups spread over the hill slopes. One extensive group is on the side of a small spur that overlooks site 56. There are both semi-subterranean tombs with beehive-type roofs and rectangular chambers with plastered walls built above the ground. There are similar groups towards the southeast end of the sector.

Two roads that pre-date the modern one. The wider road has the pit in the middle. It is 3 m wide and bordered by walls 0.50 m wide and 0.60 m high. A small wall blocks the north edge of the pit. The second road is also bordered with stones. It diverges from the first and crosses the water channel to Sector I.

**Surface Ceramics**

Brown Ware I, II, III; Dark Brown Ware III; Orange Ware III, VA, VB, VC, VI, VII, VIII and IX; and Black Ware bowl sherds.

Date LIP. LH.

It has not yet been possible to associate any group of sherds with a particular structure. It seems that most of this sector was occupied during both periods and both roads probably date back to the LIP.
Sector IV

This includes all structures north of the water channel and southeast of sector II. It comprises:-

- **Two patio groups** with areas of 1296 and 2310 m². The larger consists of nine courtyards, the walls of which were painted. One of these courtyards was built on the slope of the hill as a platform and reached from below by a passage roofed with caña de Guayaquil. On this platform are three large oval pits, each containing a number of burials. Another room on the slope has tapia columns, like those at site 28.
- **Several tomb groups** on the hill slopes. There are two kinds of tombs, as noted in sector III.
- **One set of platforms** to the southeast. These are randomly arranged, unlike the rectangular ones in sector II.
- **Abundant house circles**, small corrals, depressions and pits between the two patio groups and the water channel.

**Surface Ceramics**

- Brown Ware II, III, VI, IX, X, XI and XIII; Orange Ware VB and VIII, loop handles, an incised sherd and body sherds with white paint; Dark Brown Ware II; A few Brown Ware I sherds.

**Date** LIP, LH.

The area of depressions and house circles has LIP forms, as do most circular and rectangular tombs in this sector. Such sherds are also found in the smaller of the two patio groups, whose walls are in poorer condition than those of the larger structure. There are also some LH sherds in the larger patio group, which suggests that it was built in the LIP and continued to be used during the LH. The far platforms have no diagnostic pottery.
General Discussion

The occupation at Huaycan probably dates back to the late MH. Surprisingly, there is no evidence for any EIP occupation of this quebrada, although it does exist on the nearby hill slopes facing the valley, e.g. site 55. During the LIP the domestic structures were at the back of the quebrada and similar to those found at sites, 33, 31, 53 and 54. These occupants built and extended several courtyards and room clusters to serve as ritual houses for burial, although some inhabitants were buried in semi-subterranean, oval tombs that were mortared but not plastered. Later tombs in this period are rectangular and plastered. Both kinds occur on the hill slopes and on small promontories overlooking the site. During the LH further extension was made to the central ceremonial sector, incorporating new features learned from the Incas.

There are two published radiocarbon dates for site 57 - the only site in the study area from which samples have been taken (Trimborn 1972, p.314). The first is from a roof beam from one of the subterranean compartments, the beam being overlain by a layer of plaster. This gave an uncorrected date of $730\pm60$, i.e. 1220 A.D., which seems perfectly reasonable. A second sample came from charcoal 20 cms below the burnt floor of another room. This gave $420\pm80$, i.e. 1530 A.D. Trimborn interpreted this date as being when the Spaniards burnt the site. This again seems reasonable. No information was given as to what part of the site the samples came from, but it is most likely to be Sector II, since this is the one that was being cleared at the time of Trimborn's visit. Furthermore, one of the courtyards that Bueno cleared in the Conjunto de los Nichos has a fill of several centimetres of burnt earth and carbonised material.
PV48-59

Location: S.M. 14
Collections: 1966
Size: 0.75 ha
Total Sherds: 50

General Description

This site is situated on the south side of the next quebrada upvalley from Huaycán. It extends from the floor to the top of the ridge and consists of platforms and house circles. There are also freestanding walls that extend down the hill slope.

Surface Ceramics

EIP sherds.

Date EIP.

PV48-61

Location: S.M. 14, 15
Collections: 1966
Size: 1.50 ha
Total Sherds: 21

General Description

The site is situated on the floor and north slope of the same quebrada as site 59. A branch of irrigation ditch XI runs in front of the quebrada. The site consists of 30 to 40 house circles and platforms. The highest wall was 1 m. Some structures had as many as two pits in them. Pits were both unlined and stone-lined, 1 m in diameter and as much deep.

Surface Ceramics

Brown Ware II, III; Orange Ware VB.

Date LIP.
General Description

The site is located towards the top of the ridge that parallels the road, and is about 100 m upvalley from site 61. It consists of a few house platforms. No size estimate was given by the 1966 survey team, but the site is likely to be small.

Surface Ceramics

EIP sherds. Brown Ware I, IV; Orange Ware XIII.

Date EIP. LIP? LH?

See Earle, op. cit., pp. 63-66, 72. The site has two sectors. Sector A is on the hill slope above the modern road and sector B is at the summit of a ridge that borders the next quebrada upvalley. Sector A has two long platforms subdivided into small rooms, 6 m², by the addition of small freestanding walls. There are similar rooms in sector B. In both sectors there are house platforms with stone-lined pits 0.75 m deep.
Surface Ceramics

EIP sherds. Brown Ware I, II; Dark Brown Ware II; Orange Ware VA, X, XI.

Date: EIP, LIP, LH.

Earle placed sector A in the early EIP and sector B in the early MH. He did not mention the later component. It is not clear at present which sector the late sherds come from, but it is likely that there was some occupation of the site during the LIP and LH.

PV48-65

Location: S.M. 15

Collections: 1966, 1968

Total Sherds: 18

General Description

See Earle, op. cit., Appendices 1 and 2.

The site is located on the hill slope above the modern road before this bends round in front of the Río Seco quebrada. It consists of house platforms. Although no size estimates have been given, it was not large.

Surface Ceramics

EIP sherds.

Date: EIP.
PV48-69

Location: S.M. 15
Collections: 1966, 1968
Size: 0.25 ha
Total Sherds: 49

General Description

The site is situated at the tip of the downvalley ridge of the Río Seco quebrada. It consists of house platforms, some of which have stone-lined pits covered with stone slabs. These pits are 0.80 m in diameter and from 0.70 to 1 m deep. Freestanding walls form small rooms on some platforms. One structure at the base of the hill consists of a plastered rectangular room, 4.5 by 5 m. Its interior is similar to that of the room drawn on S.P. 2 at site 169. There are traces of burials in the compartments.

Surface Ceramics

EIP sherds. Brown Ware III.

Date

EIP. LIP.

Earle (op. cit., p. 66) placed this site in the late EIP and early MH because of the late Lima-style sherds in the collections. There is also an LIP component and the plastered structure at the base of the hill dates to that period on architectural grounds. The structure is probably contemporary with site 71 on the floor of the quebrada.

PV48-75

Location: S.M. 15
Collections: 1966, 1968
Size: 0.50 ha
Total Sherds: 40

General Description

See Earle, op. cit., pp. 63-66, 74 and 77. The site is situated
on the crest of the ridge above site 69. It consists of randomly placed house platforms with some freestanding walls crossing them. At the top of the site is a levelled platform that supports a walled room 10 by 8 m. This room has been divided into small compartments. Grinding stones, manos, shell and abundant sherds were found on the house platforms.

Surface Ceramics

EIP sherds.

Date  EIP.

PV48-71  Río Seco  S.P. 11

Location:  S.M. 15  Size:  4.5 ha
Collections:  1966, 1968  Total Sherds:  86

General Description

The site is situated close to the upvalley ridge of the Río Seco quebrada and to the east of the water channel. It extends in a long strip along the quebrada floor and covers the lower hill slope up to 10 m above the flat. There is not a deep enough water channel to prevent huaycos from flooding the site and obscuring ground level in some rooms.

The site consists of room clusters of mortared fieldstone, which have been given several coats of plaster. The buildings are almost continuous, except for a gap in construction that marks the division between Sectors I and II. The walls are in fairly good condition, especially those of Sector I. There is no indication of tapia or adobe construction, as at sites lower downvalley. Nor are there any of the ornamental friezes that characterise those sites,
although other features of coastal architecture are present, such as subterranean and above-ground compartments, covered passages, niches, steps and projecting stones. Huaguero activity is evident from the gaping holes in some rooms, but human bones are not found here, as they are at sites 35, 33 and 57. Nor is there a hillside cemetery of rectangular chambers. The only burial is in the centre of the quebrada and is built against a large boulder. It has not been put on the site plan.

The site has been divided into two sectors.

**Sector I**

This includes all structures from the road to the long wall that marks the gap in construction. It comprises:

- **One patio group** with an overall size of 2025 m² and an average room size of 27 m². Its largest room is an interior courtyard 115 m². This complex has many architectural features such as subterranean compartments, blocked doors, projecting stones, niches and covered passages.

- **One small room cluster** to the northeast of the sector. Its overall size is 340 m² and the average room size is 27 m².

- **Several room clusters and isolated walls** in the northwest of the sector. Some of these may be part of the patio group, but the ground has been covered by a huayco and it is impossible to verify whether the walls joined one another.

- **One set of platforms** on the hill slope to the east of the sector. These are well built and similar to those found at sites 35 and 57, with retaining walls about 1 m high. They cover an area of 1110 m².

- **A separate courtyard** to the northeast of the sector. It is 81 m² and has low walls.
Surface Ceramics

Brown Ware II and III; Dark Brown Ware II; Orange Ware III and VIII; A few EIP sherds.

Date LIP.

The sherds indicate an LIP occupation which probably goes back to the MH. Some of the plastered walls appear to have been built over earlier structures. At the southeast of the patio group there are several stone circles, which are shown by broken lines on S.P. 11. These appear to extend under the plastered wall, which encloses an interior on a higher level than that of the exterior, as if the ground has been specially prepared. A similar situation occurs at sites 84 and 137. The sherds found in the stone circles are the same as those of the patio group.

Sector II

This includes all the construction to the southeast of the site.

It comprises:

One large patio group with an overall area of 5548 m². Its average room size is 33 m², its largest courtyard being 120 m² and its smallest room being 6 m². It contains similar features to those of Sector I plus flights of steps up to the roofs of compartments, so that they can be entered from above.

A rubble mound to the southwest of the sector. It was probably a habitation area for there are traces of walls over it.

Isolated platforms on the lower hill slopes.

Small room clusters that may be attached to the main patio group.
Surface Ceramics

Brown Ware II, III; Orange Ware III, VB, VIII.

Date LIP.

General Discussion

The site appears to have been occupied from the late MH to some point during the LIP. The few EIP sherds probably come from site 73 on the ridge above. The late sherds suggest that the site was abandoned well before the LH and that this abandonment probably has nothing to do with the Inca conquest. If it had been occupied until the LH, one would expect to find a few Brown Ware I sherds and far more Orange Ware white on red sherds.

Some of the differences between site 71 and other large late sites were mentioned in the general description. Although the shape and size of the rooms and their associated features are similar to those of sites 28, 35 and 57, there is no large, imposing courtyard here, with steps or ramps leading to open rooms at a higher level. This and other differences are probably temporal rather than functional. The lack of burials is puzzling, in view of their quantity at the other sites mentioned. This must be due to the early abandonment of site 71 which, although it has been searched by huaqueros, does not give the impression of having been sacked.
PV48-77

Location: S.M. 15  Size: <0.25 ha
Collections: None  Total Sherds: Nil

General Description

The site consists of several rectangular structures with fieldstone walls 0.20 m high. There were possibly about 15 rooms, many of which have been covered by huayco deposits, hence the low wall height. There was no cultural material associated with the structures and no collections were made. No size estimate has been given by the original survey team.

Surface Ceramics

None

Date  LIP?

The situation at Río Seco is reminiscent of that of sites 113 and 164, where there are also structures set well back into the quebrada with scarcely any associated sherds. Since site 71 is dated as LIP and there are no LH sites in the vicinity, site 77 is unlikely to be LH. On the other hand, it would be unusual to find an EIP site on the floor of a quebrada in the path of huaycos. Therefore this site is more likely to date to the LIP.

PV48-73

Location: S.M. 15  Size: 3.5 ha
Collections: 1966  Total Sherds: <50

General Description

The site is situated on the upvalley ridge of the Río Seco
quebrada and on the hill slope facing the modern road. It consists of house platforms arranged randomly over the slope. The platforms are from 2 to 3 m long. On top of the low ridge are some larger enclosures, about $13 \, \text{m}^2$, whose walls are freestanding.

**Surface Ceramics**

- **EIP sherds**; Brown Ware III; Orange Ware VB, VC.

**Date** EIP. LIP?

Earle, op. cit., Appendix 2, placed the site in the late EIP because of late Lima-style sherds in the collections. Since site 73 is near the LIP site 71, it is likely to have been occupied during part of the LIP as well.

---

**PV48-79 and 81**

<table>
<thead>
<tr>
<th>Location:</th>
<th>S.M. 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size:</td>
<td>&lt;0.25 ha</td>
</tr>
<tr>
<td>Collections:</td>
<td>1966</td>
</tr>
<tr>
<td>Total Sherds:</td>
<td>&lt;50</td>
</tr>
</tbody>
</table>

**General Description**

These are both very small sites located on the upper part of the ridge behind site 73. Site 79 consists of small rooms, 1.5 by 1.2 m. Site 81 was a mere sherd scatter further up the ridge, but separated from site 79.

**Surface Ceramics**

- Coarse Brown Ware and EIP sherds.

**Date** EIP?
**PV48-80**

<table>
<thead>
<tr>
<th>Location: G.M. 3</th>
<th>Size: &lt;0.50 ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collections: 1966</td>
<td>Total Sherds: &lt;50</td>
</tr>
</tbody>
</table>

**General Description**

The site is situated on the hill slope upvalley from site 73, between a small erosion channel and a nameless quebrada. There is cultural material on both sides of the modern road. Its area below the road was estimated as 750 m² by the 1966 survey team. Above the road the site consists of from 15 to 20 house platforms supported by stone retaining walls. These were spread out on the slope over an area of 2800 m².

**Surface Ceramics**

EIP sherds; a few late Orange Ware sherds.

**Date** EIP. LIP?

---

**PV48-83**

<table>
<thead>
<tr>
<th>Location: S.M. 16</th>
<th>Size: 0.50 ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collections: 1966</td>
<td>Total Sherds: 67</td>
</tr>
</tbody>
</table>

**General Description**

The site is situated on both sides of the modern road to the southwest of a small quebrada. The road has cut straight through the site and destroyed some of it. Below the site runs irrigation ditch XI which begins some 2 kms upvalley. Behind the site rises the peak of Cerro Colorado, which provided the Huaycán sector with haematite for pigments.
The site has been divided into two sectors.

**Sector I**

This includes everything on the hill slope above the road.

It covers an area just under 0.50 ha. It comprises:

- An unmortared fieldstone wall, about 35 m long and 30 m above the road on the hill slope. It is 0.80 m high and runs parallel to the road, supporting a wide platform which may be part of a track.
- A minimum of six house platforms on the slope above the modern road. They are spread out between the above-mentioned wall and the edge of the quebrada water channel. The 1966 survey team estimated that one of the platforms covered an area of 40 m².
- Another platform once contained plastered compartments or rooms whose walls have been destroyed. There were also remains of subterranean compartments, as seen at other sites. One had an oval shape, and was 1.75 m long and 0.90 m deep. The other two were rectangular: 1.20 by 0.80 m and 0.70 m deep.

**Surface Ceramics**

Brown Ware I, II, III; Dark Brown Ware III; Orange Ware IV, VA, VB, VIII, IX, XI and body sherds with the snake design; Cuzco-style sherds.

**Date** late LIP. LH.

**Sector II**

This includes everything between the modern road and the ditch.

It covers an area 319 m² and comprises:

- One patio group. This consisted of a long rectangular courtyard 294 m², which may have been divided into smaller rooms.
- There were other rooms attached to the exterior of the courtyard, one of which measured 40 m². The walls are destroyed
and are now 0.50 m high. Since this group is on a slope between the road and the ditch some walls were part-retaining. There is no trace of plaster on the walls although they are likely to have been plastered, given the period in which the site is placed.

Surface Ceramics

As for Sector I.

Date late LIP. LH.

PV48-85

Location: S.M. 16
Collections: 1966
Size: <0.25 ha
Total Sherds: <50

General Description

The site is situated on the slope of a large promontory that juts out above the valley floor from the ridge behind and is separated from the ridge by a low saddle, over which runs a track that crosses the next quebrada upvalley. The hill itself is 642 m high and rises 150 m above the modern road. The site is small and extends upslope from a short, modern irrigation ditch, into which water is piped from the river in order to irrigate a small plot of land belonging to a local peasant.

The site extends along the slope for 50 m and upslope for 30 m. It consists of retaining walls supporting house platforms which were about 2 m wide. The highest wall is 1.80 m and none rises above the level of the platform it supports.
Surface Ceramics

EIP sherds. Brown Ware III; Orange Ware body sherds with white paint daubed over them.

Date EIP. LIP?

Since the walls extend intermittently to site 87, it is possible that the later sherds come from that site.

Irrigation Ditch XI G.M. 9

This is the major ditch on the south side of the valley in the Huaycán sector. According to Arenas and La Rosa (1973, p.29), it is 3.2 kms long, which coincides with my own observations. It must have been longer before the Spanish conquest, when it watered land as far downvalley as Panquilma. At present it is in use up to the village of Huaycán. From then on it is dry, since most people in the section from Huaycán to Panquilma obtain their water from wells. The upper branch of this ditch, which extends into the village square, is dry during the winter months. Much of this extension, which crosses the road below site 63 (S.M. 15), is modern and is used to water land reclaimed for cultivation by the villagers. There are no traces of ancient ditches above this ditch, as occurs in other sectors, so it is assumed that it was in use during all prehistoric periods.
PIEDRA LIZA

PV48-89

Location: S.M. 16  Size: <0.25 ha
Collections: 1966, 1968  Total Sherds: 192

General Description

See Earle, op. cit., pp. 66, 74-75, 78. The site is situated on the summit of the promontory mentioned previously, and above site 87, overlooking the next quebrada upvalley. It consists of house platforms scattered over the hill slope. There are two other points of architectural interest. One is a long level platform, 2 m wide, that follows the contour of the hill for some distance. Such platforms are found at other EIP sites, e.g. site 63, as well as LIP ones, e.g. sites 177 and 137. At the summit there is a large rectangular compound which has been divided into small compartments. Similar compounds are found at sites 58, 34 and 26.

Surface Ceramics

EIP sherds.

Date EIP.

PV48-87  Piedra Liza South

Location: S.M. 16  Size: 0.25 ha
Collections: 1966  Total Sherds: 60

General Description

The site is located on the alluvial fan of a narrow, steep-sided quebrada that separates the Huaycán sector from Piedra Liza.
The river valley is at its narrowest here, and the fan slopes steeply down to the modern road, which is 8 m above the river. There are two water channels which have left a triangular patch of land between their gullies. Part of the site is situated on this patch. The site has been divided into two sectors.

**Sector I**

This includes all structures to the west of the downvalley water channel. It extends from the edge of site 89 to a point 20 m away from the modern road. It covers an area of 2200 m$^2$, and comprises:

- A single room cluster with plastered fieldstone walls. Most of these are in poor condition and few reach their original height, which was as much as 2.35 m above ground level. Rooms are rarely a true rectangle since most walls are of different lengths. The average size of the measurable rooms was 30 m$^2$, the largest being 45 m$^2$ and the smallest 12 m$^2$. These rooms contained both above-ground and subterranean compartments, although few of these contained human bones. Because of poor preservation this sector did not show as many features as are usually found at late sites, although there were projecting stones, a covered passage and doors.

- A series of low, wide platforms to the west of the site. A few of them contained stone-lined pits with human bones.

- Part of an old road that runs in front of the site. This is wider than the track over the saddle behind sites 89 and 85 and may have been a Colonial road.
Surface Ceramics

Brown Ware II, III, IV; Orange Ware III, VB, XI; Dark Brown Ware I and II. Some of the Orange Ware rims had a white exterior slip. There were also some EIP sherds which probably came from site 89.

Date LIP.

Sector II

This is the triangular patch of land between the two water channels. It comprises:

Two adjoining courtyards with areas of 60 and 195 m². Their walls have recently been rebuilt in pirca fashion, but in one corner remains of mortar and plaster are visible.

Surface Ceramics

No collection was made from this sector.

Date Probably LIP.

PV48-97

Location: S.M. 16
Size: <0.25 ha
Collections: 1966
Total Sherds: <50

General Description

The site is located on the upvalley slope of the same quebrada. It extends from the point of the hill back into the quebrada for about 80 m along the lower slopes. The ancient track passes behind the site and climbs up to another saddle above it. The site consists of a few house platforms and four small rooms on the lower slope. These
rooms were about 4 m² and had plastered walls.

**Surface Ceramics**

EIP including some late Lima-style sherds.

**Date**  EIP.

**PV48-95**

<table>
<thead>
<tr>
<th>Location:</th>
<th>S.M. 16</th>
<th>Size:</th>
<th>0.25 ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collections:</td>
<td>1966</td>
<td>Total Sherds:</td>
<td>&lt;50</td>
</tr>
</tbody>
</table>

**General Description**

The site is located on the hill slope 15 m above the modern road, at a point where the river comes close to the south side of the valley. It extends upslope for 25 m and along the slope for 70 m. It consists of about twelve house platforms with an average size of 17 m². In front of the site runs part of the ancient track which rejoins the modern road about 50 m downvalley from the site.

**Surface Ceramics**

Nondescript body sherds.

**Date**  EIP? LIP?

There is one EIP rim and one late Orange Ware sherd in the collections. Other sites along this hill slope also have mixed collections, so that it is possible that the platforms were occupied during several time periods.
PV48-93

Location: G.M. 3  Size: 0.25 ha
Collections: 1966  Total Sherds: 51

General Description

The site extends along the hill slope parallel to the modern road and some 15 m above it. The ancient track mentioned previously runs below the site and eventually rejoins the modern road upvalley. The site extends for 150 m along the hill slope and about 20 m upslope. It consists of house platforms supported by *pirca* retaining walls.

Surface Ceramics

Some Lima-style sherds; Brown Ware III; Orange Ware III, VD, XI, XIV; and body sherds with white stripes on a red slip and white paint daubed over the natural orange background.

Date  EIP? LIP.

PV48-91

Location: S.M. 17  Size: 0.75 ha
Collections: 1966  Total Sherds: <50

General Description

This site is located about 200 m downvalley from the Pichicato quebrada. Like sites 93 and 95, it extends along the hill slope parallel to the modern road. It has two components separated by traces of an ancient irrigation ditch, which must be an extension of ditch XII (G.M. 9) that starts in Chontay and waters most of Piedra Liza. Below the ditch is a set of agricultural terraces,
now in poor condition and covered with thorn bushes. These extend along the slope for about 200 m and upslope for about 30 m from the road. Above the ditch is a series of house platforms that cover an area of about 300 $m^2$ and have an average size of 7 $m^2$.

**Surface Ceramics**

EIP sherds.

**Date** EIP.

<table>
<thead>
<tr>
<th>PV48-96</th>
<th>Pichicato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: S.M. 17</td>
<td>Size: 0.75 ha</td>
</tr>
<tr>
<td>Collections: 1966, 1968</td>
<td>Total Sherds: 298</td>
</tr>
</tbody>
</table>

**General Description**

The site is situated 20 m above the modern road on a high alluvial fan formed by the outwash of two quebradas that almost meet as they come out into the valley. Both quebradas have steep sided water channels about 5 m wide. The fan slopes towards the road at an angle of nearly 45 degrees so that the south part of the site is considerably higher than the north part. At this point the valley floor is still narrow and there is little land available for cultivation.

Crossing the fan is the Piedra Liza ditch (no. XII on G.M. 9), which waters several rows of agricultural terraces above the modern road. These formerly extended below the road as far as the river, but they are now covered with monte. They are similar to those at sites 91, 92 and 94, which are covered with thorns and trees. However, below the site a peasant family has rehabilitated some of the ancient terraces and is cultivating maize, vegetables and fruit on them.
To the east of the site is a small hummock behind which runs an ancient track. This track comes from upvalley and disappears onto a platform above the main part of the site. Traces of the track have been noted further downvalley at sites 93 and 95.

The site has been divided into three sectors:-

**Sector I**

This includes all structures east of the water channel. It comprises:-

- **One large room cluster** with an overall area of 1125 m$^2$ and an average room size of 31 m$^2$. The walls may reach a height of 2.10 m and one room has traces of red paint on its plaster. There are numerous compartments, both subterranean and aboveground, most of which contain human bones. The subterranean ones have small entry holes in the roofs. Other architectural features are benches, blocked doors, and projecting stones.
- **House platforms** on the slope to the east and south of the cluster. These have an average size of 18 m$^2$ and some contain pit burials.

**Surface Ceramics**

- EIP including Lima-style sherds. Brown Ware I, III, IV; Dark Brown Ware I, II, III; Orange Ware VA, VB, VC; Cuzco-style and Black Ware sherds.

**Date** EIP. LIP. LH.

The late sherds seem to come from the room clusters and the EIP ones from the platforms.

**Sector II**

This includes all structures to the west of the water channel. It comprises:-
One room cluster similar to that of Sector I, with an overall size of 1462 m² and an average room size of 31 m². It has similar features to those of Sector I, as well as niches placed over compartments. House platforms on the slope to the west and south of the cluster.

Surface Ceramics

As for Sector I.

Date EIP. LIP. LH.

Sector III

This comprises the agricultural terraces. They cover an area of 6000 m².

Surface Ceramics

A few EIP sherds.

Date EIP and later.

They were probably used up to the LH.

PV48-94

Location: S.M. 17
Collections: 1966

Size: 2 ha
Total Sherds <50

General Description

This site extends along the hill slope above the road from the east corner of the Pichicato quebrada as far as a small erosion channel whose mouth is strewn with boulders. It consists of agricultural terraces that are not under cultivation and are now
covered with *casuarina* pine trees. These terraces extend for 500 m along the slope and between 30 and 50 m upslope. They were once watered by ditch XII which has been redug in recent years to enable water to reach the terraces at 96. Above this ditch there are traces of the ancient track which was about 1.50 m wide. It has steps cut into it in steep places. One member of the 1966 survey team reported seeing two plastered rooms on the hill slope.

**Surface Ceramics**

Nondescript sherds; Orange Ware X.

**Date** EIP. LIP? LH?

Since the ditch is also associated with site 96, which dates from the EIP onwards, it is likely that these terraces were cultivated from then until the LH.

---

**PV48-92**  
---  

**Location:** S.M. 18  
**Size:** 1.75 ha  
**Collections:** 1966  
**Total Sherds:** 39

**General Description**

This site extends for 750 m along the hill slope, from the erosion channel mentioned previously to the ridge of the east side of the Antivales quebrada. It extends upslope for about 25 m. There are several components, including three ditches, two of which are currently in use (nos. XII and XIII on G.M. 9). The third is ancient and can only be traced in part. There are also house platforms spread out along the slope above the ancient ditch and among the boulders of the erosion channel. These platforms are about
3 m wide and 1 m high. The few agricultural terraces below the ancient ditch but above ditch XII are an extension of the ones at site 94. Finally, there is a section of the ancient track located between the ancient ditch and ditch XII. It eventually ends at a modern dwelling.

**Surface Ceramics**

EIP sherds. Nondescript Brown Ware sherds. Orange Ware VIIA.

**Date EIP.**

There may have been some occupation during later periods.

**Irrigation Ditch XII**

The Piedra Liza ditch starts from the river below site 84 (S.M. 7). It continues beneath the agricultural terraces of that site and eventually crosses the modern road, just as the Lindero ditch (no. XIII on G.M. 9) ends. It continues along the slope to water the lower terraces at site 92 and all the terraces at sites 94 and 96. An extension of it once watered the terraces at site 91. Nowadays a run-off channel leads down the terraces at site 96 and crosses the road to water a few plots of cultivated land near the river. Arenas and La Rosa (ibidem) state that the ditch is 2.6 kms long, which accords with my own observations.

The upper ancient ditch at site 92 poses a problem. Its height suggests that it was never an extension of ditch XII, although it could have joined ditches XIII or XIV (S.M. 18). In either case it would have crossed the Antivales quebrada where site 84 is now situated. It is unlikely to have done this during the occupation span of site 84, which dates to the LIP and LH. Consequently, the ditch must have been in existence and been abandoned before the
latter site was built. Therefore it dates to the EIP or earlier. Such a date is supported by the fact that most sherds at site 92 are EIP, and the fact that the ditch is stone-lined in places, which recalls the older ditches of the north bank.

CHONTAY

PV48-84  Antivales-Lindero  S.P. 12A, 12B, & 12C

Location:  S.M. 18  Size:  3.75 ha
Collections:  1966, 1968  Total Sherds:  551

General Description

The site of Lindero covers the fan at the mouth of the large quebrada of Antivales, which is the commonly acknowledged boundary line between Piedra Liza and Chontay, (politically between the provinces of Lima and Huarochirí). The quebrada water channel is 12 m wide near the modern road and has cut into the east bank rather than the west, with the result that the east sector, no.II, is on a small plateau 5 m above the channel. On the west side there is a gentle slope and buildings were actually constructed in the water channel, with the result that huaycos have overrun them. The amount of slope from east to west can be seen in the fact that the modern road drops 10 m between the point of the hill where site 82 is situated and the ridge with site 88.

The site extends back from the modern road for some 250 m on both sides of the water channel. In fact the road has cut through the site, for there are plastered walls to the north beyond the Lindero ditch (no. XIII on G.M. 9). There is also a series of
agricultural terraces in very poor condition north of the road. They extend to the river and are not in use today. They must have been watered by the Lindero ditch which would have run at a slightly lower elevation in order to avoid the site.

The site has been divided into two sectors.

**Sector I**

This is the western side of the quebrada and has an overall area of 1.5 ha. It comprises:

A minimum of six room clusters, all of which have well-plastered walls and numerous architectural features, such as wall friezes, projecting stone steps, blocked doors, benches, niches, windows, compartments, and various projecting stones. The clusters cover the area continuously except for the small cluster at the south end of the sector, which is separated from the rest by a gap of 25 m. This cluster has a total area of 157 m² and an average room size of 28 m². The other clusters appear to be joined to one another, although there are indications of a separation in the narrow, twisting passageways from the exterior. A plan (S.P. 12A, 12B, and 12C) was made of two rooms in one of the clusters to show how the original rooms were remodelled to create tombs and the kind of features that were added. It can be seen that entrances at ground level are blocked up and new ones built at an upper level over the tombs. Sets of platforms which extend all the way up the slope to site 88.

**Surface Ceramics**

Brown Ware I, II, III, IV; Orange Ware I, II, VA, VB, VII, VIII, IX, X, XII; Dark Brown Ware I, II, III; Cuzco-style and Black Ware sherds; Colonial sherds.
Sector II

This is east of the water channel and has an overall area of 1.3 ha. It comprises:

- A minimum of three room clusters. One of these was measured and its average room size was 18.5 m². The largest room was 44 m², but there are others in this sector that measure over 90 m². These clusters have similar features to those of Sector I.
- Two wide platforms at the south of the sector. One of these has a grinding stone on it.

Surface Ceramics

As for Sector I.

Date  LIP. LH. Colonial Period.

It was impossible to associate particular sherds with any structure. Like all sites, this one has been heavily looted.

PV48-86  Antivales 86  S.P. 13

<table>
<thead>
<tr>
<th>Location:</th>
<th>S.M. 18</th>
<th>Size:</th>
<th>630 m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collections:</td>
<td>1966, 1968</td>
<td>Total Sherds:</td>
<td>66</td>
</tr>
</tbody>
</table>

General Description

The site consists of a single structure on the east side of the water channel of the Antivales quebrada. It is 195 m to the south of Sector II of site 84. In front of the structure are two irrigation ditches which are a modern extension of the Chacralta ditch (no. XIV
on G.M. 9).

The structure is a rectangular room cluster with large courtyards. Its exterior walls are almost 1 m thick and were originally as much as 2.10 m high, but most of them have been destroyed so that they are no more than 0.50 m high now. They are built of rectangular blocks of fieldstone, which has been quarried naturally, and are laid with their flat side to the exterior in double rows. Only one coat of plaster was given to them. The structure has a fairly symmetrical layout and is reminiscent of the patio groups at sites 137 and 353. One long corridor has a small compartment at its end and there are two larger ones at the west of the structure. Otherwise, there are none of the features found at site 84. The largest room is 77 m² and the two compartments are 10 m².

Surface Ceramics

Brown Ware I; Dark Brown Ware III; Orange Ware VA, X, XI; Cuzco-style and Black Ware sherds.

Date  LH.

PV48-88  Antivales 88  --

Location:  S.M. 18  Size:  <0.25 ha
Collections:  1966, 1968  Total Sherds:  30

General Description

The site is located at the tip of the western ridge of the Antivales quebrada. The ridge slopes upwards at an angle of about 25 degrees for the first 50 m and then becomes steeper. Site 88 is on the gentle slope. It consists of a set of platforms the largest of which has an area of 112 m². Attached to the west side of these
Platforms are circular and rectangular compartments, some of which contained human bones. The average size of these compartments is 9 m². Some of their walls show traces of plaster. Further upslope are two more circular and two more rectangular compartments.

**Surface Ceramics**

Brown Ware I; Orange Ware body sherds with white panels on a red slip and the snake design. Black Ware and Cuzco-style sherds; Colonial sherds.

**Date** LH. Colonial Period.

---

**PV48-90**

<table>
<thead>
<tr>
<th>Antivales 90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: S.M. 18</td>
</tr>
<tr>
<td>Collections: 1966</td>
</tr>
</tbody>
</table>

**General Description**

This is a ridge top site behind site 88 and separated from it by a gap of 100 m. It extends for 350 m back along the ridge as far as a small hummock and down into a saddle, before the ridge rises really steeply to a height of 1372 m. The site itself is over 100 m above the quebrada floor.

At the north end of the site is a small rectangular structure, 21 m², which has been built into three large boulders. Behind this is a large, solid, part-retaining wall over 1 m high that separates the upper site from the lower ridge below. There is an entrance through this wall between two boulders. On the upper slopes are house platforms separated from the central burial zone by a gap of 100 m. The hummock is the burial zone, which consists of several retaining walls supporting wide platforms with neat rows of circular burial pits.
These have a diameter of 1 m and are 0.50 m deep. The construction continues down into the saddle which is crossed by two further part-retaining walls that delimit the whole complex. A similar construction pattern has been noted along the top of the ridge at sites 164, 177, 105 and 55.

Surface Ceramics

Brown Ware III, IV; Orange Ware VB, VD, VIIB and body sherds with white paint daubed on a red slip; EIP sherds.

Date EIP, LIP.

PV48-82  Antivales 82

| Location: S.M. 18 | Size: <0.25 ha |
| Collections: 1966, 1968 | Total Sherds: 27 |

General Description

The site consists of a single structure and some rubble on the lower part of the east ridge of the Antivales quebrada. This ridge slopes gently upwards at first and then steeply, like the western one. Thus, the site is only 10 m above site 84. The oblong structure is 17 m long and 3.80 m wide. It is divided into three compartments, each about 5 by 2.60 m. The walls are 0.54 m wide and made of rectangular stone blocks fitted neatly together in two rows to form a double wall. They are only about 0.40 m high now. To the east is a pile of rubble with depressions that probably indicate the collapsed lower walls of dwellings. To the south are some small rectangles, 7 by 8 m, which are marked out in stones.
Surface Ceramics

Orange Ware VB, VIII, body sherds with white panels on a red slip; Dark Brown Ware III; EIP sherds.

Date EIP. LH?

The EIP sherds are mostly from the rubble. The architecture of the stone structure suggests one of Earle's compounds (1969, pp.76-77) rather than an LH building. It is possible that the site is EIP and used for offerings in a later period.

PV48-106  Antivales 106

Location: S.M. 18  Size: 0.75 ha
Collections: 1966, 1968  Total Sherds: 103

General Description

See Earle, op. cit., p.66, 75-77, 81. The site is situated on top of the eastern ridge of the Antivales quebrada before this ridge rises steeply. It extends for some 250 m along this ridge and consists of agglutinated house platforms, about 2 by 2.5 m. Many of them had subterranean pits roofed with stone slabs. In addition, there are three rectangular structures with thick walls as described for site 82. There is a small amount of bone and a great deal of shell and sherds.

Surface Ceramics

EIP sherds.

Date EIP.

Earle placed this site towards the end of the EIP.
Irrigation Ditch XIII  G.M. 9

The Lindero ditch begins a short distance upvalley from the bridge over the river below the Yanacoto quebrada (S.M. 20). It runs beneath the large fan of the Anchucaya quebrada and then forks. One branch keeps close to the river and its water is eventually piped over to the village of Chontay, as described previously. The upper branch continues towards the south side of the valley, reaches the modern road opposite site 104 and follows the road until the Antivales quebrada. It waters land belonging to the Sierra Morena Hacienda where a variety of crops is cultivated. As stated previously, it must originally have continued around the base of the hill to water the agricultural terraces below site 84 (S.M. 18). However, its course has been changed since the building of the modern road, for it now crosses the road, cuts in front of site 84, rounds the spur below site 88 and continues along the lower hill slope below site 92 in order to water the last fields belonging to the hacienda. If an extension of this ditch once irrigated the terraces at site 92, then the ditch must date from the EIP. However, if the extension came from ditch XIV, then the Lindero ditch probably dates back to the LIP, since it is associated with site 84.

General Discussion of the Antivales quebrada

Like most quebradas, this one has been inhabited over a long time period. During the EIP the occupation was on the lower part of the eastern ridge (sites 82 and 106) and possibly the summit of the western one. If irrigation ditch XIII crossed the quebrada fan, as has been suggested, there would be less space for habitation on the quebrada floor. During the MH and early LIP the occupation seems to have shifted to site 90 at the summit of the western ridge.
Although the burials there attest to the site's being partly a sanctuary, it could also have been a fortress or place of refuge in time of war. It is directly opposite site 105 on the north bank, which is of a similar date and has a similar layout. Neither site has much Dark Brown Ware, which suggests that they were abandoned during the early LIP. Such an abandonment may be connected with the Yauyos conquest of this sector during the early LIP, (see Chapter Six). By the late LIP the occupation had extended down the hill slope onto the western ridge above the present room clusters which were started then. Traces of the older ditch must have been obliterated and site 84 was constructed behind ditch XIII, which now watered agricultural terraces lower down the slope. Occupation continued on the lower slopes of both ridges during the LH. During this period a new room cluster was built some distance behind the old ones. Its separation from them, its better standard of construction and its general symmetry are possibly the result of Inca influence from upvalley. Some room clusters continued to be utilised during the Colonial Period.

PV48-104  Santa Rosa  S.P. 14

Location:  S.M. 18 & 19  Size:  1.75 ha
Collections:  1966, 1968  Total Sherds:  59

General Description

The site is situated on the hill slope above the modern road and beside a small erosion channel. In post-conquest times a huayco has come down the erosion channel, destroying a tomb, some platforms and some of the lower agricultural terraces. An extension
of the Chacralta ditch (no. XIV on G.M. 9) runs through the middle of the site and continues around the hill. To the west of the site are a few house platforms above this ditch and a set of agricultural terraces in poor condition below it. These have been marked on S.M. 18.

The site has been divided into three sectors.

Sector I

This is the upper part of the site above the irrigation ditch.

It comprises:-

One patio group. This is rectangular and covers an area of 1200 m². The central part consists of a series of wide platforms supported by retaining walls between 1 and 2 m high. Steps lead from one platform to another. There is a row of small rooms, with an average size of 15 m², around two sides of these platforms. Access to this complex is via two entrances that lead from the wide esplanade below.

Two room clusters to the east of the above group. The rooms are on different levels and are interconnecting. One cluster contains a small compartment with a narrow, low door.

One esplanade-type platform 10 m wide. This is situated below the patio group. The back wall of this platform is part-retaining, exceptionally well built and reaches a height of 2.30 m. In front of it is a low bench. The two entrances to the complex above are 25 m apart in this wall. One leads to the patio group and the other to the upper room cluster.

One rectangular tomb to the east of the patio group with an area of 6 m².

A set of platforms below the lowest room cluster. These are in poorer condition than the upper ones.
Surface Ceramics

Brown Ware I, V, VII. Orange Ware body sherds. EIP sherds which were probably washed down from site 106 above.

Date LH.

It should be noted that the pirca wall which runs above the ditch and onto some platforms is modern.

Sector II

This comprises:-

The western group of terraces below the ditch. They cover an area of about 3000 m². There were at least 12 levels of terraces with an average size of 124 m². Those at the bottom of the slope were very destroyed and were not measured. The height of the terrace walls averages 1.17 m, and they rise 0.20 to 0.25 m above the level of the ground behind them. They are divided by access or partition walls which run perpendicular to them. These walls are 0.43 m wide and are not straight. They were probably stepped to allow for changes in terrace level.

Surface Ceramics

Nondescript sherds.

Date EIP? LH?

It is tempting to date the terraces as purely LH because of their proximity to Sector I. However the ditch is probably earlier, since it is a branch of one that originates upvalley (XIV on G.M. 9). Although it has been recently redug, it can be dated back to the EIP. It is likely, therefore, that the terraces were constructed then, but they could also have been used during the LH.
Sector III

This comprises:-

The eastern group of terraces below the ditch. These cover an area of over 6000 m$^2$ and rise to a height of 16 m above the modern road. Unlike Sector II, the size of the plots varies considerably because there are more dividing walls, which are 0.70 m wide and range from 0.50 to 1 m in height. Some extend over only two or three terraces. The average height of the retaining walls is 1.10 m, but in fact most walls are higher and rise up to 1 m above the level of the ground behind them. There are traces of plaster on some of these upper walls, which are high for agricultural terraces. In neither Sector II nor Sector III are there stone lined run-off channels to convey water from the ditch to the terraces.

Surface Ceramics

Nondescript sherds. EIP sherds.

Date EIP? LH.

The sherds on the terraces are undiagnostic. Because of the evidence from site 108 (q.v.), it is likely that both ditch and terraces date from the EIP and a few sherds from this period can be found on them. On the other hand, the position of Sector I above the ditch would imply that they were in use during the LH. However, the number of walls and their height above the ground level of the terraces suggest that these were being remodelled with a non-agricultural function in mind.
PV48-108    Sierra Morena    S.P. 15

Location: S.M. 19    Size: 9 ha
Collections: 1966, 1968    Total Sherds: 147

General Description

This site extends along the hill slope from the modern *pirca* wall near site 104 (marked on S.P. 14) to the western ridge of the Anchucaya quebrada. The slope is scored by three erosion channels with large boulders at their mouths. These have been marked on S.M. 19 and no. 2 appears on S.P. 15. The site is 750 m along the slope and about 120 m upslope but is not continuously covered with structures. It has not been divided into sectors, but it has the following components:

**Agricultural terraces.** These are a continuation of the terraces at site 104 and are at their western end. They stretch as far as the second erosion channel. From then on they have been largely destroyed by modern corrals and a shrine. *Pirca* walls run down the slope at intervals, dividing them into sections, as at sites 60 and 104. Above them runs irrigation ditch no. XIV which continues through site 104. There are traces of less even terracing above this ditch, as far as an upper ditch that appears on the hill slope in places (S.M. 19).

**House platforms.** These are cleared patches of land supported by retaining walls that often make use of boulders *in situ*. The platforms occur among the rocks of the erosion channels and along the hill slope between ditches, but mostly above the upper ditch. There are places, however, particularly below the small tomb marked on S.P. 15, where agricultural terraces below the upper ditch have been reused as house platforms. This is because they have stone-lined pits in them, which is not a feature
of agricultural terraces. The platforms average 6 m², but may be as much as 24 m². The pits are 1 m in diameter and 0.60 m deep.

Tomb Groups. These are found in two places indicated on S.M. 19. One group is in erosion channel 2 and consists of several rectangular above-ground chambers with mortared walls about 1 m high. One large tomb was 4.30 by 1.35 m and contained human bone and food remains. Another tomb is built over the upper irrigation ditch (S.P. 15) and has a small pit attached.

Room clusters. There is one room cluster on the lower terraces, between the middle and lower ditch (S.P. 15). There is a modern corral nearby which has incorporated ancient plastered walls into its pirca construction. The rooms of the cluster have an average size of 10 m². One room, set apart from the rest, has a door and two niches in its walls, as well as a projecting branch in its door jamb. Another smaller cluster is found on a lower terrace below the lowest ditch and 45 m from the modern road. (This cluster has been marked "a" on S.M. 19). It consists of a single room with an attached compartment. The room is 14 m² and has walls over 1 m high.

Isolated Rooms. These are found to the east of the site. Two of them have been plotted on S.P. 15 and the position of all four is marked on S.M. 19. Three of the rooms are of similar fieldstone and mortar construction with solid walls from 1.5 to 2 m high. These walls were not plastered. The average size of the rooms is 8.50 m². One of them has an entrance, but the other two are without apparent entry. The fourth room is to the northeast of the pirca wall marked "y" on S.M. 19. It is much smaller, 2.2 m², and has a projecting stone in one wall.
Surface Ceramics

EIP sherds; Brown Ware I; Dark Brown Ware II, III; Orange Ware VA, VI, X and body sherds with the snake design; Colonial sherds. There are some modern sherds around the three isolated rooms.

Date EIP. LH. Colonial Period.

The EIP sherds are scattered over the agricultural terraces, on the upper platforms in erosion channels, and on the hill slope above the upper ditch. The LH sherds are found in and around the room clusters, and around the tombs and platforms in the second erosion channel. The ditches, which will be discussed below, date back to the EIP and it is likely that the terraces and upper house platforms are of similar date. After the abandonment of the ditches, seen in the building of a tomb over the upper one, people settled on the former agricultural terraces in the LH and possibly earlier. New room clusters were built on them. Elsewhere in the study area room clusters are always kept well off the agricultural land. If one finds them on agricultural terraces, it implies that these were no longer in use.

The dating of the isolated rooms is problematical. The modern sherds imply that they are of recent construction, but they are too solid to have been built as peasant dwellings, even though they have been used as such. Their general construction is reminiscent of that at site 104 and they could be LH, even though there was no ancient pottery nearby. They could have been storehouses reused in the Colonial and Republican Periods.
Irrigation Ditch XIV

The Chacralta ditch begins on the south bank of the river opposite the San Martín quebrada. It thus provides a useful boundary for the Chontay sector, (S.M. 21). The ditch follows the river, running between 10 and 50 m below the Vichuya ditch (no. XV on G.M. 9), and eventually crosses the large fan at Anchucaya (S.M. 20). At present the water has to be piped over the steep-sided erosion channel, but there could have been an aqueduct in the past. The ditch continues round in front of site 110 and behind the hacienda Sierra Morena. It is the principal source of water for most of the hacienda lands and for the ranch house. It now twists down the hill slope and across the modern road, continuing alongside for 200 m until it ends. Formerly, as S.M. 19 shows, it must have extended above the modern road and continued along the slope to water the terraces at site 104 and beyond. It is not stone-lined now, although it shows signs of having been redug. At the point marked "x" on S.M. 19 the former hacendado concreted the ditch and extended it around the point of the hill, below site 82, and back along the Antivales quebrada to site 86. There are concrete run-off channels down the slope from this extension, which was never used. However, some branch of this ditch that has now been obliterated may have continued across the Antivales quebrada to water land at site 92. Even if this were not so, the ditch can still be dated as EIP because of the late structures on the agricultural terraces below it.

On S.M. 19 and S.P. 15 there are two other ditches above ditch XIV. The uppermost of these is stone-lined in places and ends just before erosion channel no.1. Its source could not be traced, but it is too high to join the Chacralta ditch. It is possible that it joined, or was intended to join, the Vichuya ditch that presently ends at site 110 (S.M. 20). Certainly beyond the boulders of erosion channel no.2 it
has become a mere outline along the hill slope, and its final section was never used because the slope beneath it is completely bare.

The middle ditch clearly once branched off from ditch XIV, although a pirca wall now blocks its progress. It ended at erosion channel 2, whereas the other two ditches wended their way through this. The pirca walls that run down the slope leave a gap when they reach the middle ditch, although they are built right over the upper one and obscure it. Certainly the upper ditch dates back to the EIP because of its similarity to other EIP ditches and the fact that no late sherds are found above it, although EIP ones are. The middle ditch may be a branch that was never continued. At site 158 there are similar branches all close together. It is possible that the former hacendado tried to rehabilitate it, as he did the Chacralta ditch, for there are signs that it has been re-dug. Local informants say that some 40 years ago the lower terraces were covered with "pasto", purposely grown for animal fodder.

<table>
<thead>
<tr>
<th>PV48-110</th>
<th>Chacralta</th>
<th>S.P. 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td>J.M. 20</td>
<td>Size: 1.0 ha</td>
</tr>
<tr>
<td>Collections:</td>
<td>1966, 1968</td>
<td>Total Sherds: 128</td>
</tr>
</tbody>
</table>

General Description

The site is situated to the west of the water channel of the Anchucaya quebrada. It is at the base of the tip of the quebrada's western ridge and encircled by an irrigation ditch that has been recently re-dug. This ditch runs too close to the walls of the site to have been operational when the site was built (S.P. 16). In any case, it appears to have destroyed some outer walls.
The site comprises:-

A single room cluster many of whose walls are in very poor condition. They extend on to the lower hill slopes of the ridge, as far as site 112 which is 5 m above. Most walls have been given several coats of plaster. As at other sites, charring can be seen on the undercoats, implying that the rooms were remodelled after an act of burning, for no charring ever appears on a topcoat. The rooms in the eastern part of the cluster are in a better state of preservation than others. The average size of those measurable is 17 m², with a range from 4 to 56 m². The average size of measurable above-ground compartments is 2.5 m².

There are the usual architectural features:- doors, niches, benches, projecting stones and covered passageways. There is abundant human bone in the compartments, all of which have been looted. Textiles and potsherds are scattered everywhere.

To the west of the site, and not marked on the site plan, are some low, wide terraces in poor condition.

**Surface Ceramics**

Brown Ware I, II, III, IV; Dark Brown Ware I, II, III; Orange Ware III, IV, VA, VB, VI, II, VIII, X, XI; a few Cuzco-style and Black Ware sherds.

**Date** LIP. LH.
PV48-112

Location: S.M. 20  Size: 0.50 ha

General Description

See Earle, op. cit., pp.66, 71, 75-78. The site is situated above site 110 on the west ridge of the Anchucaya quebrada. Although Earle (op. cit., p.67) classifies it as a ridge top site, the house platforms begin immediately to the west of site 110 and extend upslope and along the spine of the ridge. There are house platforms and more elaborate structures that probably resemble the compounds of other such sites.

Surface Ceramics

EIP sherds.

Date  EIP.

PV48-113

Location: S.M. 20  Size: 8.50 ha

General Description

This site is situated on both sides of the Anchucaya quebrada. The portion on S.P. 17 was surveyed in 1966. It is on the east bank and extends back from the modern track as far as the lower slopes of the ridge and the water channel. In 1968 another sector was discovered further back into the quebrada, some 250 m behind site 110 on the west bank. The structures here are on a flat expanse of terrain, some 5 m above the water channel. They cover the quebrada
floor, sporadically at first, and then densely up to an erosion channel with large boulders at its mouth. Structures have been built among these boulders in the path of the watercourse. In the post-conquest period a huayco has covered them with sands and silts.

The site has been divided into four sectors.

Sector I

This includes everything south of the Vichuya ditch (no. XV on G. M. 9) on the east side of the quebrada. The sector ends as the water channel hugs the side of the ridge and there is no more flat land on which to build. It covers an area of 3 ha and comprises:-

Seven room clusters, some of which extend onto the lower slopes of the ridge. It is possible to ascertain the boundaries between some clusters, particularly those that are smaller. The largest cluster is the one at the south end of the sector, which is not in a good state of preservation. There appears to be a minimum of 42 rooms, with an average size of 20 m$^2$ and a range from 3 to 67 m$^2$. There are few features because most walls are under 1 m in height, but there are benches with subterranean pits and above-ground compartments. The average size of the 19 compartments measured was 1.5 m$^2$. Other clusters have fewer rooms with an average size of 15 m$^2$. The most northerly is attached to a large rectangular courtyard 153 m$^2$. Its walls are thicker than those of other clusters: 0.50 m as opposed to 0.30 m.

A minimum of three groups of house circles, whose walls are pirca and may be built against large boulders. These circles lack pits and compartments.

House platforms. These are on the lower slopes of the ridge above the room clusters. Some of them have pits and above-ground compartments.
Surface Ceramics

Brown Ware I; Dark Brown Ware I, II, III; Orange Ware III, VB; Cuzco-style and Black Ware sherds.

Date LIP. LI.

There are not many LH sherds. It would seem that most structures were built during the LIP and continued to be used during the LH.

Sector II

This includes everything on the east bank between the upper Vichuya ditch and its middle branch. It covers an area of some 2.25 ha and comprises:-

One rubble mound which has been termed the huaca. It has an irregular shape which is partly due to the previous hacendado's use of a bulldozer to clear land for cultivation. It is a mass of rubble without mortar, but it appears to have two arms or wings that extend northeast. It covers an area of 8295 m² and is about 2.5 m high. There are traces of walls and pits in it. Some of the walls are pirca and possibly recent.

A set of agricultural terraces between the arms of the mound. They are watered by the Vichuya ditch and have fieldstone retaining walls, 1 m or less in height. The terraces cover an area 8300 m².

A set of agricultural terraces to the east of the east arm of the huaca, between the Vichuya and the middle ditch. These are in poor condition and are narrower than the previous set. They cover an area of 1200 m².

A room cluster at the base of the above terraces, nestling close to the east arm of the huaca. The cluster covers an area 450 m² and its plastered walls are in poor condition.
Surface Ceramics

EH sherds? EIP sherds; Orange Ware VB, VIII; Cuzco-style sherds; Colonial sherds; Dark Brown Ware II.

Date EH? EIP? LIP. LH. Colonial.

There were few sherds associated with the huaca, but nevertheless these were varied. There were Brown Ware bowls with cane-stamped circles (fig. XCVI m), EIP Orange Ware bowls, and some Cuzco-style fragments. These are not sufficient to date the structure with certainty. Architecturally, it bears no relation to anything known for the EIP, LIP or LH periods, but it does resemble the mounds at sites 98 and 56. From the site plan it can be seen that it has a general "U" shape. It is doubtful that such a shape could be entirely the result of the hacendado's bulldozing. The wings of the "U" are orientated to the northeast, which is the common orientation for EH "U" shaped structures downvalley and outside the study area (Scheele, 1970, p.139). In height and size it is smaller than the downvalley mounds of 117 (Mina Perdida), 352 (Cardal) and 147 (Manchay). However, it resembles these in having few surface sherds, and some traces of interior walls and rooms. It is probably an EH structure that was utilised during the early EIP and abandoned during later periods, although offerings may have continued to be made there during the LH.

The terraces associated with the huaca yielded a few nondescript sherds. They have been used for growing maize within the last thirty years and would have been watered by the upper Vichuya ditch which, like the Chacralta one at site 82, has been concreted as it turns the point of the hill. It is unusual to find agricultural terraces between the arms of a "U" shaped structure. Terraces associated with other huacas in the valley, e.g. at site 98, are placed well in front
of the mound and not in the plaza area. It is therefore likely that they date to a later prehistoric period, when the mound had been abandoned. Given the pattern of occupation on the upper slopes above the Vichuya ditch, the terraces are more likely to have been constructed during the EIP than any other period.¹

The other set of terraces yielded LIP sherds and were probably used as house platforms in late periods, although they could have been cultivated in the EIP. The sherds near the room cluster were LH and Colonial.

**Sector III**

This includes everything between the middle ditch and the lower Chacralta ditch. There are no structures here except for the wings of the huaca. To the north of the middle ditch is a track which runs above a wide, shallow moat, crossed in one place by an earth bank. Both the middle ditch and the moat cut through the wings of the huaca and were constructed by the previous hacendado to water the slope. A run-off channel from the Vichuya ditch has been dug down the slope in order to feed the middle ditch.

**Surface Ceramics**

Nondescript sherds, except for a neckless olla (fig. XCVII j, k).

**Date**

There are no structures and the sherds add nothing to previous information about the site.

**Sector IV**

This includes everything on the west bank of the water channel. It comprises:-
Several room clusters made of mortared fieldstone walls, some of which have traces of plaster. These walls are very ruined and stand no more than 1 m high. Many rooms have pits and subterranean compartments roofed with slabs.

House platforms extending for 20 m up the slope of the ridge.

Tomb groups built into boulders. These are of the "beehive" kind described for downvalley.

Surface Ceramics

Brown Ware III, VIIA. Sherds of an orange paste with tiny cane-stamped circles.

Date MH? early LIP.

There are only a handful of sherds on the surface. If it were EIP or LH, there should be sherd evidence of its belonging to one of these periods. The position of the structures and the architecture suggest a late date, and therefore, on the basis of this rather negative evidence, it is dated as MH and early LIP. If it were late LIP, there would be some Dark Brown Ware sherds.

Notes:

1. It is possible that these terraces and the concrete extension of the Vichuya ditch are of recent origin. There was no one at the hacienda who had worked for the previous hacendado and could give me this information. The possibility needs to be checked in the future.
PV48-lll

--

Location: S.M. 20
Size: .50 ha

Collections: 1966
Total Sherds: 61 for Sector B

General Description

The site is located on the east ridge of the Anchucaya quebrada, above site 113. From the 1966 description and my own observations it extends upslope from the Vichuya ditch and is above the zone of destroyed platforms marked on S.P. 17. The nth platform also marked on the site plan is properly part of this site. It is uncertain how far up the ridge the site extends, but sector B was located at the summit.

The site consists of house platforms supported by retaining walls that could be as much as 2.5 m high. One such platform measured 2 by 1.2 m. There were abundant pits and cross walls on the platforms. The pits were about 1 m in diameter and as much as 1 m deep.

Surface Ceramics

EIP sherds. Dark Brown Ware II, IV; Brown Ware II, III, IV.

Date

EIP. LIP.

Earle (op. cit., p.66 and Appendix 2) placed it in the middle EIP. The sherds from ll1B include the LIP sherds, so that the summit of the ridge was being used during the LIP, as at sites 164 and 177.

General Discussion of the Anchucaya Quebrada

The occupation of this quebrada probably began during the EH, when a mound was built on the east side of the water channel. It is not yet certain where the local populace lived during this period, but
by the EIP the occupation had spread over the slopes of both ridges and the summits of these were used as ceremonial areas. During this period a ditch was constructed to cross the fan behind the mound and to water some newly-built agricultural terraces between its wings. The MH saw settlement expand to the back of the quebrada. By the LIP the upper ditch had been abandoned because room clusters were being built below it on former agricultural terraces, some of which became house platforms. A particularly large cluster was built close to the former ditch on the west side of the water channel. Other smaller clusters were built on the east side. The summit of the ridge continued to be used, probably as a sanctuary rather than a fortress. During the LH patio groups and room clusters were expanded and the mound may have been used for offerings.

Irrigation Ditch XV

G.M. 9

The Vichuya ditch begins along the south bank of the river, opposite the Avillay quebrada (S.M. 22). It rapidly gains height and continues along the hill slopes below site 109 until it reaches the Anchucaya quebrada. Beneath it ancient agricultural terraces extend downslope to the flat land near the river. They are in poor condition and, with the exception of a few beneath site 109, they are not in use today, although trees were grown on them some thirty years ago. In places the ditch is stone-lined, which suggests an EIP date. The previous hacendado concreted sections of the ditch as far as site 113. He also concreted the section from the tip of the east ridge of the Anchucaya quebrada to the aqueduct. This section is probably ancient (see note 1 to site 113) and would originally have extended across the water channel and below site 110. The crossing of the water channel would have presented a problem if
the channel were as steep-sided as it is today. At present there is a concrete aqueduct, but formerly the ditch could have been brought further back into the quebrada, like ditch I at Canturía. A further extension beyond site 110 would have watered the upper terraces at site 108. Cultivation in the EIP would therefore have extended downvalley from the terraces at site 109 and across most of the Anchucaya fan. In the late periods it probably only extended as far as the pirca wall marked on S.M. 20. It is unlikely to have extended further because of the LIP/LH room cluster on the flat land between the upper Vichuya ditch and the middle ditch. This latter ditch was dug by the previous hacendador, as was the small isolated section near the pirca wall, which was intended to link up with the middle ditch and ditch XIV.

PV48-109  Vichuya  S.P. 18A, 18B & 18C

Location:  S.M. 21  Size:  12.50 ha
Collections:  1966, 1968  Total Sherds:  324

General Description

The site extends along the hill slope from the Anchucaya quebrada as far as two erosion channels opposite the San Martín quebrada on the north bank. Its arbitrary western boundary is the pirca wall on S.M. 17. Its eastern boundary is the second erosion channel. It has been divided into three sectors:

Sector I

This extends from Anchucaya to the first erosion channel and covers an area of about 10 has: 1 km along the slope and 100 m upslope. It comprises:
The irrigation ditch and agricultural terraces discussed previously.

A track which can be traced almost all the way from Anchucaya to the Balconcillo de la Palma (S.M. 22). It disappears as it crosses quebrada floors, as often occurs with pre-Columbian tracks, but one can usually pick it up again on the hill slope. It runs at varying heights above the ditch. At Anchucaya it is about 10 m above ditch XV, but as one proceeds east it drops to 3 m and then rises to 40 m above the ditch. It is supported in places by a pirca retaining wall and is about 1.50 m wide. Steps have been made to ease the ascent/descent. These consist of a layer of granodiorite blocks about 0.30 m high. Just before Sector II the path descends the slope and vanishes amongst thorn bushes.

House platforms. These can be seen both above and below the path. They are scattered at random and yield the occasional sherd.

Surface Ceramics

EIP sherds.

Date EIP.

Sector II

This includes all the structures around the first erosion channel and a few platforms to the east of this on the upper slope. It covers an area of 1.50 ha and comprises:

A minimum of 100 house platforms. These are built into the boulders of the erosion channel, although away from the water-course. Two of the upper platforms were mapped (S.P. 18A and 18B). The retaining walls are not mortared, although small
freestanding walls built on the platforms are. Some of the platforms have stone-lined pits, similar to the one shown in S.P. 18B. These are small, about 0.50 m in diameter, and as much deep. Many platforms contain above-ground compartments built against the back-retaining walls. These are from 2 to 3 m long and 1.60 to 2 m wide. They may be divided into small chambers inside. Human bones were not found in the compartments mapped, although they were present in others. Small windows communicated with the exterior (S.P. 18A), or else there was a small hole in the roof (S.P. 18B). None of these holes was big enough for a person to slip through. 18 of the upper platforms were measured and had an average area of 38 m², with a range from 8 to 105 m².

Small room clusters at the base of the slope. There were plastered, freestanding walls on the platforms, which formed small rooms with pits and subterranean compartments.

Surface Ceramics

Brown Ware II, III, IV; Dark Brown Ware I, II; Orange Ware VB, VC, VI, VIII and some body sherds with white paint.

Date LIP.

Sector III

This includes all structures from the edge of Sector II to the next erosion channel. It covers an area a little over 1 ha and comprises:-

House platforms as described for Sector I, although there were not as many. The average size of seven platforms measured was 31 m², with a range from 12 to 77 m².
Room clusters on the lower slopes. One cluster was mapped (S.P. 18C). It shows three rooms at different levels on the slope. The floor of one room is stepped. The other two rooms have above-ground compartments and a pit. As stated before, the retaining walls are pirca, but the freestanding walls are mortared and plastered. The only other features in another cluster were two entrances.

Separate tomb groups. These were built against large overhanging boulders.

Surface Ceramics

As for Sector II with the addition of a few EIP sherds.

Date EIP, LIP.

Most of the construction is LIP. The early sherds come from a few platforms at the west end of the sector. A single Cuzco-style sherd and a Colonial sherd suggest some activities here during those periods.

SISICAYA

PV48-125 -- --

Location: S.M. 21 Size: <0.25 ha
Collections: 1966, 1963 Total Sherds: <50

General Description

The site is situated at the mouth of a small quebrada, the first of a group of three as one proceeds upvalley from site 109. The Vichuya ditch runs in front of the quebrada fan and 3 to 4 m above
the ditch runs the track mentioned previously for site 109. The track is about 2 m wide here and peters out over the quebrada floor, only to resume again the other side of the channel.

The site consists of small house platforms on the slopes on both sides of the water channel. There are also oval house circles on the floor. One platform was measured and had an area of 15 m^2. The walls of the platforms are between 0.50 and 1.0 m high. On the west side of the quebrada was a rectangular tomb chamber 1.00 m by 0.70 m and 0.80 m high.

**Surface Ceramics**

- EIP sherds; Orange Ware VIIA; Modern sherds.

**Date** EIP. LIP?

Earle (op. cit., pp. 65, 69 and 72) placed this site in the middle of the EIP. The construction of the tomb resembles that of late tombs. Therefore it is possible there was some later occupation here.

**PV48-127**

- Location: S.M. 21  
  Size: <0.25 ha
- Collections: 1966, 1968  
  Total Sherds: 32

**General Description**

See Earle, op. cit., pp.65, 72 and Appendix 1. The site consists of about 25 small house platforms with an average size of 15 m^2. To the west of the channel is a small, circular threshing floor, together with some corrals which may incorporate older walls.
Surface Ceramics

EIP sherds.

Date EIP.

PV48-129

Location: S.M. 22
Collections: 1966

Size: <0.25 ha
Total Sherds: <50

General Description

The site is located on the western edge of the steep-sided water channel in the next quebrada upvalley. The Vichuya ditch runs 10 m below at the base of the steep fan. The track mentioned previously, which has continued upvalley in front of sites 125 and 127, climbs up beside the water channel and then drops down to the flat. Beyond the water channel is sheer cliff, 100 m long, over which nothing could pass.

The site consists of house platforms which extend up the slope.

Surface Ceramics

Nondescript sherds.

Date EIP?

Earle included it in the EIP because of its location. He is probably right, given the fact that there is the occasional group of platforms along the slope between sites 127 and 129, and that the few sherds associated with these are EIP.
PV48-131

Location: S.M. 22
Collections: 1966

General Description
The site is close to the face of the cliff below the track as it runs along the flat. It consisted of a double wall, 35 m long and 1.75 m wide, to which two rooms were attached. The walls were from 1 to 1.5 m high. There were traces of other walls in the field.

Surface Ceramics
Nondescript sherds.

Date
The pastes looked late, but there is not enough information to date it.

PV48-133 Balconcillo de La Palma

Location: S.M. 22
Collections: 1966

General Description
The 1966 survey team designated the whole of the quebrada fan, known as the Balconcillo de la Palma, as site 133. It comprises:

The track which ascends up onto the fan to a height of 25 m above the river. There are steps to help the ascent. Most of these are made of stone blocks, as at Vichuya, but a couple utilise the trunk of a huarango tree. The track is supported by a pirca retaining wall, about 1 m in height. It continues over the fan and upvalley, always above the irrigation ditch.
Two irrigation ditches that are both branches of the La Palma ditch (no. XVI on G.M. 9). They diverged further upvalley. The upper branch extends over the top of the water channel and peters out in a field strewn with large boulders. The lower branch crosses the water channel some 50 m lower down. It runs over the fan, watering small plots of land cultivated by local peasants, and then descends down a sharp drop of at least 10 m to the fields near the river.

Sets of agricultural terraces. These occur on the slope above the lower ditch and are in poor condition. They must have been watered by the upper ditch which once extended over the whole fan. A small section of it can be traced at the west end of the site. The track cuts through this section of the old ditch, as happens at sites 98, 107 and 158.

Walls. These cross the fan and are freestanding. Some may indicate additional paths. One marked on S.M. 22 has an entrance, 1.5 m wide, leading to the fields. On the jambs of the entrance and facing inwards are two niches.

House platforms. These are built among the boulders of the water channel and on the hill slope above the path. There is also an unusual structure in the nearby fields, where a small room has been built on top of a large boulder.

Surface Ceramics

Brown Ware I; nondescript body sherds whose paste looks early.

Date EIP? LH?

It is not certain what part of the site these sherds come from. The various components are likely to belong to different periods. For example, the track is in good condition and appears to have been recently renovated. Since it destroys the function of the early
upper ditch, it may be later in time. Neither of the ditches is stone-lined, but this does not preclude the upper one's dating to the EIP. Such a date is likely because of the abandoned EIP ditches noted elsewhere in the study area. The fan was probably under cultivation during all prehistoric periods, but it is possible that there was less cultivation during the late periods.

**Additional Occupation of the La Palma zone**

Between the Balconcillo de la Palma and the bridge over the river at Canturfa there is a long hill slope broken by a single quebrada. There are house platforms on both sides of the water channel of this quebrada. The track from Balconcillo de la Palma runs above the upper irrigation ditch and ends at the quebrada with steps going down into the water channel. The platforms are likely to belong to the EIP because of their general position and their association with a stone-lined ditch to be discussed below.

**Irrigation Ditch XVI**

The La Palma ditch begins upvalley beyond the bridge over the river at Canturfa (S.M. 3). It crosses the modern road and runs along the base of the hill slope until it gains sufficient height to water the land south of the river as far as the Balconcillo de la Palma. As stated previously, this ditch forks somewhere beyond the unnamed quebrada with the house platforms. Both branches cross the fan at the Balconcillo de la Palma. On the hill slope some 4 to 5 m above the modern road is another older ditch, that can be traced only from an abandoned adobe house (S.M. 3). This ditch runs along the hill slope a few metres above ditch XVI and is stone-lined in places. It terminates at the unnamed quebrada with the house platforms. Beneath it are agricultural terraces in poor condition,
that are now covered with thorn bushes. There were no sherds associated with this ditch or the platforms, but the general appearance suggests an EIP date for both. It is impossible to trace the source of this ditch, which must have come from higher upvalley than ditch XVI. The bridge there is an almost sheer cliff on the south bank of the river. Ditch XVI has to run at the base of this cliff. There is no trace of any ditch coming around the cliff, which it must have done, given the height at which it first appears. All this suggests that land forms may have changed since the EIP.

PV48-106  Sisicaya South  --

Location:  S.N. 2  Size:  0.25 ha
Collections:  19d6  Total Sherds:  52

General Description

The site is situated on both sides of the water channel of a small quebrada opposite the village of Sisicaya. It consists of small house platforms supported by pirca retaining walls, and some house circles on flatter ground. There are above-ground compartments, 1 m high, on some platforms.

Surface Ceramics

Brown Ware III, IV; Dark Brown Ware I and II; Orange Ware VB and body sherds with white paint; EIP sherds.

Date  EIP? LIP.
PV48-168  
Huarrangal

Location:  S.M. 23  
Collections:  1966, 1968  
Size:  0.50 ha  
Total Sherds:  <50

General Description

This site is situated at the mouth of the Huarrangal quebrada, which is opposite the Chaimayanca quebrada on the north bank. The fan has a medium slope to the river and is cut by a deep erosion channel, some 5 m below the quebrada floor. Since it is a narrow quebrada, there is little floor beneath the hill slope. The Antapucro ditch (no. XVII on G.M. 9) runs in front of this fan, looping back into the channel.

The site consists of a few house platforms on the slope of the west side of the water channel. On the east side there are two parallel walls, about 200 m apart, one at the mouth of the quebrada and one further back. In front of the northern wall is a small square structure.

Surface Ceramics

Brown Ware I; Rims from bowls, neckless ollas and one distinctive EH sherd.

Date  EH. LH.

Scheele (1970, p.200) gives a brief description but could find few EH sherds. He thought the bulk of the occupation was late. It is impossible to say which structures belong to either of these periods.
PV48-353  Antapucro  S.P. 19  

<table>
<thead>
<tr>
<th>Location</th>
<th>S.M. 23</th>
<th>Size: 1.5 ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collections</td>
<td>1978</td>
<td>Total Sherds: 114</td>
</tr>
</tbody>
</table>

**General Description**

The site is situated at the mouth of a wide quebrada up which a track runs to the Tinajas quebrada (G.M. 2). The flat alluvial fan is cut by a steep-sided water channel that hugs the west side, leaving more land available for construction to the east. The Antapucro ditch runs in front of the site.

The site has been divided into three sectors.

**Sector I**

This includes everything to the west of the track and south of the ditch. It comprises:-

*One large patio* group with some compartments attached to its east wall. The structure covers an area of $1575 \text{ m}^2$ and is similar in overall layout to those at sites 137 and 104.

The central courtyard is stepped and surrounded by compartments, on the west, south and possibly the north. To the west is a group of rooms contained within the generally rectangular perimeter of the structure. In the centre of the upper courtyard is a small room which seems to be the focal point of the complex. A row of eight small rooms has been built against the north wall of the structure. They all have a north entrance that overlooks the irrigation ditch. These are modern rooms, built at the beginning of this century to house farmworkers. The average room size is $27 \text{ m}^2$. The average compartment size is $5 \text{ m}^2$.  


A small room cluster to the southwest of the patio group. This consists of several rooms and compartments, some of which have pits. The average size of the measurable compartments is \(4 \text{ m}^2\).

**Surface Ceramics**

Brown Ware I and III; Orange Ware VA, VIII, IX; Cuzco-style sherds; EIP sherds.

**Date** EIP? LH.

The structures date from the LH, but there may have been an earlier occupation during the EIP.

**Sector II**

This includes everything east of the track and comprises:

One large rubble mound, against which the casa hacienda has been built. The mound covers an area of 4290 \(\text{m}^2\) and is about 2 m high. There are traces of walls half-buried in the rubble, only a few of which have been plotted on the site plan. There are also some oval depressions that are probably house platforms of the kind seen elsewhere in rubble mounds. There were twenty-one depressions with a maximum diameter of 2.8 m. A modern pirca wall runs over the mound.

**Surface Ceramics**

Cuzco-style sherds; Brown Ware I; Orange Ware sherds with the snake design; Dark Brown Ware II rims.

**Date** LH.

The sherds were found on the surface of the mound and were clearly associated with the depressions.
Sector III

This includes everything west of the water channel. It comprises:-

Several depressions over the talus. These are similar to those of Sector II, but there were no sherds.

Surface Ceramics

None

Date ?

OTHER SITES

PV48-175 Chuchsurco

Location: S.M. 24 Size: 0.50 ha
Collections: 1966 Total Sherds: 70

General Description

The site is situated on the floor and lower ridge of an unnamed quebrada. On the IGM 1:200,000 map the area is known as Chuchsurco. The Antapucro ditch (no. XVII on G.M. 9) starts further upriver and runs in front of this quebrada. A considerable part of the fan behind the ditch is covered with large columnar cacti, hence the name Pampa de los Gigantones. Site 175 is on the west side of a fairly well-defined water channel and extends from the quebrada floor up onto the ridge as far as a rock with a petroglyph. The site consists of house circles on the floor and platforms on the slope. The walls are no more than 0.50 m high. The petroglyph has
been pecked through the purple patina of a large boulder, which is probably andesite or dacite. It consists of some anthropomorphic figures, as well as circles, squares, spirals and wavy lines, some of which recall the mural at site 137.

**Surface Ceramics**

Brown Ware II, III and IV; Dark Brown Ware II, IV; Orange Ware VB.

**Date**
LIP.

---

**PV48-177**

**Chuchsurco**

<table>
<thead>
<tr>
<th>Location: S.M. 24</th>
<th>Size: 2.25 ha</th>
</tr>
</thead>
</table>

**General Description**

Most of site 177 is situated on a round hummock further up the ridge from site 175. There is also another sector some 200 m to the west, on the hill slope above a very small gully. The main part of the site consists of house platforms around the base of the hummock. Above these is a large platform, probably about 50 m long and 10 m wide. Above this are some small, narrow platforms which were probably not house platforms. Further up is a hummock covered with stone-lined pits, some of which contain human bone. Above this is another hummock with two platforms built on it. Beneath this hummock the ground slopes down to a saddle across which there are two parallel walls. The whole construction is reminiscent of sites 90 and 164.

To the west of the large platform are some walls, one of which
is at least 60 m long and 0.65 m thick. It crosses the head of a small gully that leads down to the river below. There is an entrance, 1.25 m wide, in the wall. To the east of the entrance is a small room, 2.65 by 2.50 m. The walls of the room are 0.60 m high and appear to have been mortared. On the slope above the gully are several boulders, smaller than the one at site 175, but of the same rock. Their west face is covered with petroglyphs, whose designs include many wavy, snake-like elements. There are at least five such boulders.

**Surface Ceramics**

- **EIP sherds**: A few Brown Ware I, II, III and IV. Dark Brown Ware II; Orange Ware VB, VC.

**Date**

- EIP, LIP.

The EIP sherds come mainly from the house platforms. Some of the LIP sherds also come from these, but the bulk are found around the burials at the top of the hummock. There are no sherds associated with the petroglyphs, which Villar Córdova (1935, p.108) has noted at a similar altitude in other central coast valleys. He believes they mark the beginning of the highland zone.

---

**PV48-343**

- **Location**: S.M. 24
- **Size**: 9 ha
- **Collections**: 1966
- **Total Sherds**: <100

**General Description**

The site is situated on both sides of a small quebrada upvalley from sites 175 and 177. It consists of room clusters on the quebrada floor. The walls of these are now about 0.50 m high, but were
originally at least 1.85 m. There are benches, blocked doors and subterranean compartments with human bone in them. On the central hill between the two quebradas are three long, rectangular, above-ground tombs. These have small entrances, 0.35 m wide and 0.46 m high, each with a stone lintel to give the impression of a miniature door. There were as many as twenty crania in one tomb. Two long platforms are situated 10 m above these tombs. The retaining walls of these platforms are between 1 and 2 m high. A large stone has been set upright on the upper platform, as if it were an ancient huaca. Above these platforms are rows of tombs.

Surface Ceramics

Cuzco-style sherds; Brown Ware I; EIP sherds.

Date EIP. LH.

The late sherds came from the ridge and the tombs. The early sherds are from house platforms at the east of the site, which probably had a long occupation.
Summary of the South Bank Sites

The Early Horizon

<table>
<thead>
<tr>
<th></th>
<th>Definite</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitation sites</td>
<td>1 (168)</td>
<td>-</td>
</tr>
<tr>
<td>Ceremonial sites with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>some habitation</td>
<td></td>
<td>2 (56,113)</td>
</tr>
</tbody>
</table>

Total sites: 3

The Early Intermediate Period and Early Middle Horizon

<table>
<thead>
<tr>
<th></th>
<th>Definite</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitation sites</td>
<td>17*</td>
<td>2 (95,100)</td>
</tr>
<tr>
<td>Habitation sites with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fortification and/or</td>
<td>10 (55,63,75,89,</td>
<td>2 (79,81)</td>
</tr>
<tr>
<td>ceremonial structures</td>
<td>90,82,106,112,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>111,73)</td>
<td></td>
</tr>
<tr>
<td>Agricultural terraces,</td>
<td>4 (94,108,91,</td>
<td>3 (104,113,133)</td>
</tr>
<tr>
<td>some with nearby</td>
<td>109)</td>
<td></td>
</tr>
<tr>
<td>habitation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total sites: 39

* These are: 35,51,59,67,65,69,80,35,97,93,96,92,109,125,127,129,133.
### The late Middle Horizon and Late Intermediate Period

<table>
<thead>
<tr>
<th>Habitation sites</th>
<th>Definite</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6 (53, 54, 61, 63, 93, 160)</td>
<td>9 (51, 67, 73, 80, 85, 95, 94, 108, 127)</td>
</tr>
<tr>
<td>Habitation with room clusters and/or patio groups</td>
<td>12 (35, 31, 33, 57, 71, 83, 87, 96, 84, 110, 113, 109)</td>
<td>2 (69, 77)</td>
</tr>
<tr>
<td>Habitation with hilltop occupation/fortification.</td>
<td>2 (90, 1118)</td>
<td>-</td>
</tr>
</tbody>
</table>

**Total Sites:** 31

### The Late Horizon

<table>
<thead>
<tr>
<th>Habitation</th>
<th>Definite</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitation</td>
<td>1 (168)</td>
<td>5 (63, 67, 94, 109, 133)</td>
</tr>
<tr>
<td>Habitation with room clusters and/or patio groups</td>
<td>12 (35, 57, 83, 96, 84, 86, 88, 104, 108, 110, 113, 353)</td>
<td>-</td>
</tr>
</tbody>
</table>

**Total Sites:** 18

### The Colonial Period

<table>
<thead>
<tr>
<th>Habitation</th>
<th>Definite</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitation</td>
<td>4 (84, 88, 103, 113)</td>
<td>1 (109)</td>
</tr>
</tbody>
</table>

**Total Sites:** 5

N.B. The Chuchsurco sites are not included in this summary.
General Remarks

The following chapter considers the nature and function of the architecture at late sites. It deals mainly with those sites for which measured plans were made (S.P. 1-19), after the ceramic analysis and a preliminary architectural survey had indicated that such sites dated to the LIP and/or LH. As has been seen in Chapters Three and Four, the bulk of this architecture is located at the front of the quebrada fans. It consists of a labyrinth of plastered rooms and courtyards separated by occasional passageways. Behind the plastered structures are small circles and platforms. The latter sometimes extend to the top of the neighbouring ridge. Some of these sites and structures are better laid out than others and preservation varies from poor to good, both within and between sites.

Previous work on central coast architecture has focused on sites close to the shore, rather than those in the mid-valley, because the former are easily accessible and usually more spectacular. Work in the mid-valley has been limited to brief descriptions of surveys and test excavations. Some extensive restoration work has also been reported. However, only Stumer (1954) has attempted comparisons between sites on the immediate coast and those further inland in the Rimac valley. His site classification differs from the one used here, but his results provide interesting comparative material.

The most detailed description of late architecture in the Lurín has been given by Bonavía (1965). He discusses five sites in the
Manchay and Cieneguilla sectors, which are below the study area (G.M. 2). His study also provides useful comparative material, although he does not concern himself with site function. Like most of the authors mentioned in notes 2 and 3 above, he assumes that the plastered structures are a mass of adjoining peasant dwellings, and that the more imposing buildings are temples or curaca residences (op. cit., pp.30-31, 46, et passim). This chapter will show that the archaeological and documentary evidence does not warrant such an assumption.

The relevant sites are listed in Table 8, together with the kind of architecture found there. For descriptive purposes this architecture has been divided into three classes: domestic, ritual and community.

**Domestic architecture** refers to those structures that were built and used by a nuclear or extended family for activities connected with day-to-day living. Such activities would be sleeping, food preparation, eating and light manufacture. The structures include house circles and platforms.

**Ritual architecture** refers to those structures built and used by a larger social group, probably a group of relatives within the ayllu. Activities connected with religious beliefs, such as ancestor worship, would have taken place here. The structures include room clusters, patio groups and all kinds of tombs.

**Community architecture** refers to those structures built and used for a variety of purposes by a larger social or political group, such as the village, the ayllu or even the state. The structures include agricultural terraces, irrigation ditches, roads and bridges.

These categories are not mutually exclusive, for it is likely that certain ritual activities took place in the house or on
agricultural terraces, and that certain day-to-day living activities took place in the room clusters. In point of fact the classification has been made with regard to the users of each class of structure, rather than the activities carried out in them. It involves three levels of social organisation:—the family, a group of descendants from a common ancestor and the community or village.

Cross-cutting this tripartite functional division is a formal one of *pirca* versus mortared walls.

*Pirca* walls are made of undressed stone and have no mortar. Such walls are always fairly low because they are prone to collapse. *Pirca* freestanding walls are usually less than 1 m high in the study area, although retaining walls may be more. This kind of construction is found at most sites, usually at the back of the quebrada behind the room clusters, or else on the hill slopes as terraced platforms.

*Mortared* walls can also be freestanding or retaining. The freestanding ones are usually covered with mud plaster. Adobes may be used in conjunction with stones in this kind of construction. There are also examples of *tapia* blocks being bonded to mortared walls.

Of the three classes of architecture mentioned previously, the domestic is constructed of *pirca* walls, with the occasional mortared wall when tomb chambers are built on a platform. Ritual architecture is always constructed from mortared walls. Both kinds of walls were used for community architecture.
<table>
<thead>
<tr>
<th>SITE</th>
<th>S.M. S.P.</th>
<th>DOMESTIC</th>
<th>RITUAL</th>
<th>COMMUNITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>[House Circles][House Platforms][Isolated Tombs][Cemeteries][Room Clusters][Patio Groups][Shrines/Ceremonial Platforms]</td>
<td>[Agricultural Terraces][Ditches][Road]</td>
<td></td>
</tr>
<tr>
<td>164</td>
<td>1</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>169*</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>x</td>
</tr>
<tr>
<td>137</td>
<td>4</td>
<td>3A-B</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>136</td>
<td>4</td>
<td>4</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>135</td>
<td>5</td>
<td>5</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>66*</td>
<td>10</td>
<td>6</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>28</td>
<td>12</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>35</td>
<td>13</td>
<td>9</td>
<td>-</td>
<td>x</td>
</tr>
<tr>
<td>57</td>
<td>14</td>
<td>10</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>71</td>
<td>15</td>
<td>11</td>
<td>x</td>
<td>?</td>
</tr>
<tr>
<td>87</td>
<td>16</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>96</td>
<td>17</td>
<td>-</td>
<td>-</td>
<td>x</td>
</tr>
<tr>
<td>84</td>
<td>18</td>
<td>12A-C</td>
<td>-</td>
<td>x</td>
</tr>
<tr>
<td>86</td>
<td>18</td>
<td>13</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SITE</td>
<td>S.M. S.P.</td>
<td>DOMESTIC</td>
<td>RITUAL</td>
<td>COMMUNITY</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>----------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>House Circles</td>
<td>Isolated Tombs</td>
<td>Room Clusters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>House Platforms</td>
<td>Cemeteries</td>
<td>Patio Groups</td>
</tr>
<tr>
<td>88</td>
<td>18</td>
<td>-</td>
<td>x</td>
<td>-</td>
</tr>
<tr>
<td>104</td>
<td>19 14</td>
<td>-</td>
<td>x</td>
<td>-</td>
</tr>
<tr>
<td>108</td>
<td>19 15</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>110</td>
<td>20 16</td>
<td>?</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>113</td>
<td>20 17</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>109*</td>
<td>21 18A-C</td>
<td>-</td>
<td>x</td>
<td>-</td>
</tr>
<tr>
<td>353</td>
<td>23 19</td>
<td>x</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Notes:**
- A plan was made of one or two rooms or terraces, but no overall site plan.
- Possibly present.

Some types of architecture, even though listed above, may not appear on all the site plans. For example, the *pirca* circles were not plotted at sites 57 and 353. Nor do all the isolated tombs appear on the plans for sites 28, 35 and 57. Features such as agricultural terraces are often found on the site maps rather than the site plans. Ditches that are probably modern extensions of ancient ditches, such as those at sites 57, 86 and 110, have not been included in the table.
The Materials

Pirca wall architecture uses only fieldstone, and probably canes and mud for perishable superstructures, whereas the mortared wall architecture uses a variety of materials for various features and embellishments. These materials are as follows:

Stone

This is the basic construction material for walls. Large slabs are used for door lintels and for roofing above-ground and subterranean compartments. Smaller slabs are used for niche and window lintels and for projecting stone steps in walls. Thin, sharpish stones are embedded in the walls as pegs.

The stone is the local tonalite/granodiorite found in abundance in the talus of the main valley and lateral quebradas. It is used as found or split into smaller pieces, perhaps by one of the andesite chopping tools (fig. CI d). A quarry was noted on the headland that separates site 136 from 137. In addition, water-worn cobbles are also incorporated into the walls. Some of these have been previously used as manos. Large boulders in situ are utilised in both pirca and mortared wall construction.

Mud

Mud is used for mortar, plaster and to make adobes and tapia blocks.

1. Mortar. This comes from fields near the river. It contains a high proportion of sands and gravels but is compact enough to bind the stones reasonably well. There is some weathering of the mortar, but this is not sufficient to produce the appearance of a collapsed pirca-type wall and there would be no reason for differential weathering on two contemporaneous parts of a site.
2. Adobes. These are occasionally incorporated into fieldstone walls and are manufactured from the same kind of mud as the mortar. There are still adobe-manufacturers in the study area, who work close to the river because they need plenty of water to manufacture the bricks. These are cut out with a wooden frame and left to dry. The ancient bricks were smooth and probably manufactured in the same way as the modern ones. They fall into two size categories, a large and a small. At site 136 the large adobes range from 44 x 22 x 13 cms to 51 x 25 x 14 cms. The small ones range from 25 x 25 x 14 cms to 32 x 21 x 17 cms. At site 57 there is a similar variation: from 60 x 26 x 17 cms to 22 x 13 x 17 cms. The larger sizes are within the range of variation for adobes given by Bonavía for downvalley sites (op. cit., pp. 20-21, 42, 78).

3. Tapia. This construction material is rare in the study area. The word refers to blocks of mud much larger than adobes. These blocks are shaped, when damp, by means of boards or esteras. Tapia is found as rectangular pillars at sites 28, 57 and possibly 35, and is also used for wall friezes. The pillars measure from 43 x 41 x 88 cms to 46 x 49 x 87 cms. The blocks used for friezes could not be measured, but they seem to have been a similar size.

4. Plaster. This covers some 80% or more of the walls of ritual architecture. The kind of mud used varies. Some of
it is similar to the mud mortar and contains a fair amount of gravels. Some rooms, however, have a very fine plaster that must come from quarries like the ones at site 57.

**Pigments**

These are used to paint designs on well-plastered surfaces. There are five colours found in the study area:– black, white, red, yellow and green. Red, yellow and black pigments can all be made from a haematite base and white probably comes from barium sulphate.\(^8\)

**Wood**

This was used for all kinds of roofing. Tree trunks laid horizontally were used to roof rooms and compartments. Placed vertically in the ground, they supported canopies of branches and *esteras* known as *ramadas*. Medium-sized branches were used as lintels for doors and windows. Small branches were incorporated into the walls as pegs. The wood used has not yet been identified,\(^9\) although Engel (1966) suggests that *huarango* and *molle* (*acacia macracantha* and *schinus molle*) were used for similar purposes in the Chilca valley.

**Canes**

These are also used for roofing and lintels. There are three kinds:–

1. *Caña de Guayaquil*. This is the tallest cane growing in the valley. It reaches a height of over 10 m (Towle 1961, pp.17-18). It was used to roof passages and door lintels at site 57. It is the only cane that could have been used to roof the gabled structure at site 137.

2. *Caña brava*. This is the larger of the two canes found along the river bank and is completely solid. It can therefore
be used for the lintels of doors and niches that have
to bear the weight of some 40 cms of wall above them.
It is also used as auxiliary roofing material for
compartments, in conjunction with stone slabs.

3. Carrizo. This slender, hollow cane is used nowadays in the
manufacture of baskets and large mats called esteras.
It has been observed at site 35 as roofing for an
above-ground compartment. Such a light roof could
not carry a heavy weight on top.

Totora
This long grass was used to make ropes to bind canes together for
roofs. These ropes occur in the Panquilma excavation (see Appendix II),
as do blocks of mud with cane and rope imprints.

Bones
These are used as pegs in the walls of rooms and compartments.
They are either the long bones or mandible of a camelid. Although
samples have not yet been submitted for identification, it is assumed
that these bones were from the llama.10

Textiles
From the disposition of certain pegs in the walls, it is possible
that textiles were used as decorative elements on walls and across doorways.11
These textiles are likely to have been cotton, which until recently
was the principal crop downvalley (Bonavía 1965, p.6). Any wool would
have come from highland alpacas. All trace of the textiles themselves
would have been destroyed by Spanish armies or the extirpators of idolatry.
The Structures

I. Domestic Architecture

A. Distribution

The distribution is indicated on Table 8. Most sites have house platforms whose position is best appreciated on the plans for Avillay and Nieve Nieve (S.P. 3A, 3B, and 4). The distribution of house circles is less even since the Huaycán sector seems to lack them, which may be due to the increasing urbanisation of that sector. The layout and location of the circles can be best appreciated at the Sisicaya sites (S.P. 1, 3A, 3B and 4).

B. Description

1. Construction

As stated previously, walls are built by piling up stones without mortar. Large boulders in situ are often used as the base of the wall, whether this is freestanding or retaining. In order to accommodate a slight slope, a low step may be created across the length or width of both circles and platforms. These desniveles are no more than 0.30 m high.

2. Types of Structure

a) Circles

These are areas of irregular shape that are enclosed by a pirca wall. They are found on the quebrada floor or the gentle lower slopes. Sometimes they appear as little more than cleared patches in a mound of rubble. They can be single structures or joined in groups of from two to eight rooms. Their walls are from 0.30 to 1.10 m high and probably supported a cane superstructure. There is an example of such
a superstructure on a pirca circle at the back of site 136, but it is probably an ancient structure that has been recently reused. The size of the circles varies from 2 to over 40 m².

b) Platforms These are built on the steep slopes of quebradas or on slopes bordering the main river valley. Like the circles, they have a considerable size range: from 2 to over 80 m². Their retaining wall slopes slightly inwards and varies from 0.50 to 2 m high. It often extends 0.30 m or less above the surface of the platform it supports, forming a small parapet. On other occasions a small mortared wall, as much as 1 m high, is built above the retaining wall. It is usually set back from the latter (S.P. 18A and 18B).

Platforms are sometimes divided across their width by a small wall, about 0.20 m wide and 0.30 m high. Occasionally walls are built up at the sides of the platform in order to enclose it better. It is assumed that small shelters of canes or esteras were built on these platforms, just as squatters build in the pueblos jóvenes today.

3. Architectural Features

These are similar for both circles and platforms.

a) Entrances are merely gaps in the walls and are not always easy to find. In the circles they vary in width from 0.40 to 1.00 m; and on the platforms, from 0.40 to 0.90 m. They are usually located at the back corner of a platform and there may be a couple of steps down from a path to the entrance (S.P. 18B).

b) Benches are more common in platforms than in circles. They are usually set against the back retaining wall (S.P. 18B) and vary from 0.30 to 0.60 m in height. In some cases they could
have served as sleeping areas, although usually the entrance leads onto the bench.

c) Pits and Depressions. Not many pirca circles have stone-lined pits. For example, in sector IV of site 164 only three out of forty circles have pits. At site 136 only three circles in sector II have them. This suggests that the pits may not have a domestic function. Pits are usually 1 m or less in diameter and from 0.27 to 1.0 m deep. Platforms have more pits and also depressions, 0.50 m wide and as much deep. These depressions may be the result of large storage jars being embedded in the earth. Thirty-seven out of fifty platforms between erosion channels V and VI of sector III at site 137 had some pits and depressions. Twenty-six of the platforms had one pit or depression; nine had two; one had three; and one had four. A couple of pits at several sites seem to be associated with human bone fragments, but it is not certain that their chief function was to serve as tombs. Although archaeologists often suggest a storage function for such pits (Bueno 1978a, p.70), reliable chroniclers state that large earthenware vessels were used for domestic storage (Cobo 1964, book 14, chap.3). It is possible that the pits were used as a repository for sacred objects, such as figurines or conopas.

d) Hearths. Survey and excavations of the pirca circles have not yet revealed clear evidence of hearths. Charcoal was present in small quantities in three excavations in platforms at site 137, but there were no blackened stones, as might be expected from analogy with peasant hearths in the study area today.
4. **Associated Cultural Material**

   a) **Grinding Stones.** There are few grinding stones associated with either platforms or circles. There is one in sector IV at site 164, two on the platforms of sector III at site 137, and some at sites 31 and 84.

   b) **Sherds.** It is easier to distinguish ceremonial ware from plainware during the LH than it is during the LIP. Certainly on LH platforms and circles the surface sherds are from Brown Ware I storage jars. There are occasionally charred sherds from cooking vessels. At the Sisicaya sites there are rare Colonial and Cuzco-style sherds on the platforms, but not in the quantities found in the plastered structures. Any decorated sherd on a circle or platform is usually associated with a small above-ground tomb.

   c) **Other.** A bone weaving tool was found in one of the excavations into platforms at site 137 (see Appendix II, Avillay test pit 2). A spondylus shell was found in one circle at site 136. The excavations also yielded a small quantity of food: maize, *lucuma*, peanuts and shellfish.

C. **Discussion**

   There are four reasons for postulating that the circles and platforms are pre-Columbian peasant dwellings. Three are based on archaeological and one on documentary evidence.

**Archaeological Evidence**

1. **Firstly** there are the results of the general survey of the study area. This survey has shown that there are two kinds of architecture: one of poor quality with only two or three architectural features from among entrances, benches, steps and pits: the other
is better constructed, well finished and has more features. It is probable that some peasant dwellings should have been discovered in such an intensive survey, and the circles and platforms must be considered the most likely candidates.

Supporting evidence comes from the associated cultural material and features:– the sherds from cooking and storage vessels and the depressions caused by standing storage vessels in the ground. Moreover, the general lack of ceremonial ware on these structures indicates that they had a domestic function.

This evidence is somewhat contradicted by the lack of hearths and grinding stones, a fact that is inexplicable at present. It has been seen that some sites do have a few grinding stones associated with the circles and platforms, but the stones are not found in the expected quantities. It is possible that several families shared a single stone, since these are bulky and difficult to transport. It is also possible that not as much grinding was carried out in food preparation, as has been imagined.

The lack of hearths is also puzzling. On one hand, it is possible that the Indians did not use stones to support their fires. Cobo (1964, vol. 2, book 14, p.243) states that they were sparing with their firewood, since it was in short supply. Therefore one might reasonably expect to find no more than charcoal and ash in these structures. Another possibility is that there was more communal food preparation than has been previously supposed, and that this took place on the pampa, away from sleeping and storage areas.

2. Secondly, there is the evidence from three excavations in the platforms at Avillay (see Appendix II, Avillay, test pits 1-3). All test pits yielded small quantities of charcoal, sherds from storage and cooking vessels, and some foodstuffs, including shellfish. One of the pits produced a bone weaving tool. This is the kind of
assemblage that might be expected on a living floor, given the
general lack of personal possessions and domestic furniture among
the ancient Indians (cf. Cobo, op. cit., book 14, chap. 4; also
quotation vii below).

3. Thirdly, the Lurín circles and platforms resemble structures
that have been identified as pre-Columbian peasant dwellings
elsewhere in Peru. To take some recent examples, there are
the LIP/LH domestic structures at Asto in Junín, (Lavallée 1973,
pp. 43-48, figs. 2-7). These are small stone circles, from 3 to
6 m in diameter, that are clustered in varying sized groups on
hill tops or terraced stopes. The EIP and MH domestic structures
at Cerro Arenas and Galindo on the north coast, although earlier in
time, bear an even closer resemblance to the Lurín platforms
and circles (Brennan 1982, fig. 4E; Bawden 1982, figs. 10 and 11).
At both sites grinding stones, domestic refuse and hearths are
associated with the structures. At Galindo the smaller structures
of area B are similar in size and layout to platforms at 137 and
169 and should also be compared with the platforms on S.P. 18A
and 18B.

Documentary Evidence

All 15th and 16th century chroniclers are unanimous in stating
that the coastal peasants lived in cane and mud houses. The relevant
quotations are as follows:-

i. ... en los llanos y costa de la mar hay dos suertes de casas,
unas de bahareques y otras de tierra y adobes; aquéllas tienen
por paredes y cerca un encañado muy cerrado y tejido a modo de
zarzo ... que los naturales de este reino no la llaman sino quencha.
Sobre él arman el techo, que por ser tierra donde nunca llueve, no
tiene más artificio que una ramada ... hecha de varas atravesadas
con una estera de carrizos o juncos encima. (Cobo 1964, book 14, p.240).

ii. ... y fueron como hoy vemos sus aposentos — hechos de cañacejas débiles sin ligación ni tapias... (Calancha 1638, book III, chap. 2, p.555).

iii. Las poblaciones que tienen ordinariamente son muy pequeñas y pobres. En unas partes son de cañas, en otras de huya muerta, muy viles y bajas y estrechas y tan sucias... en otras partes tienen casa de piedra de mampostería muy mal puestas con tierra muerta al mismo tono que las demás y son semejantes a los corrales que en nuestra España suelen hacer por el camino para encerrar los ganados. (Anónimo 1920, p.148).

iv. Habitan las gentes debajo de aquellas frescuras en aquellas ramadas que he dicho, treinta a treinta, cincuenta a cincuenta, y ciento a ciento --- así están los lugares y no mayores. (Estete 1924, p.48).

v. Hay poblaciones muy grandes, las casas de los indios de cañizos, las de los caciques de tapia y ramadas por cobertura porque en aquellas tierras nunca llueve. (Hernando Pizarro 1959, p.88).

vi. ... que no han menester buhios sino unas ramadas rescadas con cañas y esteras de eneas. (Pedro Pizarro 1965, p.195).

vii. ... si es en los llanos, un carrizo por pared y sin cobertura — en la sierra los cubren con paja. Todo el ajuar y homenaje que tienen sus casas es algunos cántaros, ollas y husos y telares y otros aparejos para trabajar. (Santillán 1950, p.92).

viii. Las casas que habitan los labradores son de juncos y ramas porque cuando no llueve hace gran calor y pocas casas tienen techos. (Sancho de la Hoz 1962, p.179).

ix. Los indios no viven en casas sino debajo de árboles o de ramadas. (Zárate 1947, p.466).

According to the above quotations, the bulk of the coastal populace lived in cane huts and therefore cannot have resided in the multi-roomed plastered structures to be described later. Although Cobo also mentions adobe houses, the quotation from Hernando Pizarro shows that these were for the curacas. It has been assumed here that the cane shelters described in the chronicles were incorporated into the pirca circles and platforms. Even today the poorest peasants in the valley still live in quincha or estera shelters that are often built on ancient terraces or platforms (see S.P. 7B). Such shelters would leave little or no trace after a hundred years of abandonment.
In conclusion, there is reasonable evidence to consider the study area pirca structures as peasant dwellings. However, at present it is not clear how many circles or platforms constituted the dwelling unit of a single family. Certainly the size range of both circles and platforms suggests that they were not all used in the same way. Nevertheless, there are not the apparent divisions between cooking, storage and work areas, that are found at Galindo (Bawden op. cit., pp.168-169). It is also possible that activity areas may have changed over time, as postulated at Asto (Lavallée, op. cit., pp.77-82), although such a hypothesis may be difficult to prove in the Lurín.

II. Ritual Architecture

A. Distribution

This kind of architecture is the most visible in the study area and constitutes the major part of all late sites. Very little has been destroyed by modern construction, except for portions of sites 57, 83, 84 and 137. Consequently its extent can be calculated reasonably accurately. This architecture is found downvalley and on the coast (see notes 2 and 3). Upvalley it extends no further than the village of Antioquía.

B. Description

1. Construction

The majority of walls are freestanding except where construction extends over a steep slope, in which case mortared retaining walls are used in conjunction with the freestanding ones.
a) Freestanding walls.

These enclose spaces of varying sizes, usually on four sides, but occasionally on three. The spaces range from large court-yards, over 100 m$^2$, to small rooms, 4 m$^2$. Table 9 gives the height of the highest and lowest walls measured at each site. It will be seen that these range from 1.50 to 5.40 m. They average about 2 m.

Walls are not always built flush and there is no detectable pattern to their variation in height. If the walls originally enclosed a large courtyard, which was later divided into small rooms, the interior walls will not be as high as the original outer ones. On the other hand, walls were often rebuilt to a greater height during phases of remodelling, so that the older the site, the higher the walls.

Walls were usually built without a foundation trench$^{18}$ and the builders took advantage of any boulder *in situ*, rather than remove it. Some boulders were as much as 2 m high, in which case a small wall, between 0.20 and 0.50 m high, was built over the boulder and joined the newly constructed wall on both sides (S.P. 6).

The construction method was to use a row of boulders, about 0.50 m high, as a foundation, or else two rows of large cobbles. These rows were filled with smaller stones and mortar. As the wall was built up it was battered until the two rows of stones became one. The difference between the top and base measurements of various walls can be seen in Table 9. Another technique, which was used in the Huaycán sector and downvalley (Bonavía 1965, p.19), was to have thick layers of mortar separating layers of carefully chosen small stones.
# TABLE 9
FREESTANDING WALL HEIGHTS AND WIDTHS

<table>
<thead>
<tr>
<th>Site</th>
<th>Highest Wall m</th>
<th>Lowest Wall m</th>
<th>Width m</th>
<th>T-Top B-Base</th>
<th>Presence of Stepped Walls</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>3.00</td>
<td>1.55</td>
<td>.32</td>
<td>T</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.80</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>169</td>
<td>3.00</td>
<td>n.a.</td>
<td>.26</td>
<td>T</td>
<td>--</td>
</tr>
<tr>
<td>137</td>
<td>3.00</td>
<td>1.60</td>
<td>.30</td>
<td>T</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.67</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>136</td>
<td>3.50</td>
<td>1.50</td>
<td>.20</td>
<td>T</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.55</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>135</td>
<td>2.00</td>
<td>n.a.</td>
<td>.35</td>
<td>T</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.50</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>2.30</td>
<td>n.a.</td>
<td>.30</td>
<td>T</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.45</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>3.70</td>
<td>n.a.</td>
<td>.21</td>
<td>T</td>
<td>x</td>
</tr>
<tr>
<td>35</td>
<td>4.00</td>
<td>n.a.</td>
<td>n.a.</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>5.40</td>
<td>n.a.</td>
<td>n.a.</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>3.00</td>
<td>n.a.</td>
<td>.23</td>
<td>T</td>
<td>x</td>
</tr>
<tr>
<td>87</td>
<td>2.35</td>
<td>n.a.</td>
<td>.23</td>
<td>T</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.38</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>96</td>
<td>3.20</td>
<td>n.a.</td>
<td>.30</td>
<td>T</td>
<td>x</td>
</tr>
<tr>
<td>84</td>
<td>3.50</td>
<td>n.a.</td>
<td>.23</td>
<td>T</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.47</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>86</td>
<td>2.10*</td>
<td>n.a.</td>
<td>.38</td>
<td>T</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>1.20*</td>
<td>n.a.</td>
<td>.25</td>
<td>T</td>
<td>--</td>
</tr>
<tr>
<td>104</td>
<td>2.20</td>
<td>n.a.</td>
<td>.45</td>
<td>B</td>
<td>--</td>
</tr>
<tr>
<td>108</td>
<td>1.50*</td>
<td>n.a.</td>
<td>.27</td>
<td>T</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.50</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>3.60</td>
<td>n.a.</td>
<td>n.a.</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>113</td>
<td>2.25</td>
<td>1.70</td>
<td>.23</td>
<td>T</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.50</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>2.73</td>
<td>n.a.</td>
<td>.20</td>
<td>T</td>
<td>--</td>
</tr>
<tr>
<td>353</td>
<td>1.50*</td>
<td>n.a.</td>
<td>.50</td>
<td>T</td>
<td>--</td>
</tr>
</tbody>
</table>
**Notes:**

-- refers to lack of evidence.

x present.

n.a. not available. At some sites it was impossible to measure the lowest wall height.

* refers to sites where the highest wall is no longer its original height and only its current height can be given.

a) Freestanding Walls (cont.)

There was a general tendency for builders to choose the flat face of a stone for the exterior of a wall, so that there would be an even surface for plastering. This is particularly noticeable on LH structures, such as the Conjunto de Las Ventanas at site 57 and at sites 86, 104 and block 4B at site 136. However, there are also instances of slapdash building, where the walls are curved in order to meet another wall. They may also curve vertically, giving their cross-section an irregular shape. Such irregularities were remedied by modifying the thickness of the plaster in order to give the illusion of an even, straight surface.

Walls can also be built in sections, a fact usually obscured by subsequent plastering, although vertical sections 2 m high have been noted at sites 28 and 35. At site 87 there is evidence for horizontal sections.
b) Retaining Walls

These are constructed in the same way as the pirca ones, with the addition of mud mortar. They vary in height from 0.50 to 3.00 m. The platforms they create are criss-crossed by free-standing walls and riddled with subterranean compartments. I have seen no evidence that fill was used to build up the platforms behind a wall, although Bonavía found otherwise downvalley (op. cit., p.34). Retaining walls are not plastered and painted, neither are adobes or tapia used in their construction.

c) Use of materials

Tapia is not used in wall construction, except for friezes. In such cases blocks of tapia were placed lengthways along the top of a wide wall, allowing some 0.20 m of stone and mortar construction behind them. This provided a firm backing to the tapia. Such construction can be appreciated at site 84 where a frieze has fallen leaving a section of the wall behind it, about 0.20 m thick and 0.40 m high. It would have been impossible to sculpt a frieze, if the wall had been entirely of stone and mortar.

Adobes are found at only two sites in the study area: 57 and 136. At site 57 they are found in the north wall of the large courtyard in the Conjunto de las Ventanas. There are three layers near the top of the wall and close to the western door. Adobes are also found in the walls of two rooms that adjoin this courtyard. At site 136 they are found in ten of the sixteen blocks. Their presence is more noticeable because there is less plaster at this site. They have been haphazardly
incorporated into the walls. There are two walls made completely of adobes; walls of adobes on a stone and mortar base; walls with a mixture of adobes and stone for 0.80 m and upper layers of stone; and walls of stone for 0.80 m and upper layers of stone and adobe. Niches in these walls may have a lintel of a single adobe.

It would seem that adobes are commoner downvalley, where they are found in large quantities at three of the late sites examined by Bonavía.\(^20\) They are also common at Pachacamac where most of the late buildings are made of adobes on a stone base.

**Plaster** probably had three uses:— to cover any imperfection of the wall construction; to provide an adequate surface for painting; and to aid in the remodelling of certain rooms. An example of the first use can be seen in the way in which plaster is used to smooth over the juncture of two walls and to prevent a corner from splitting (cf. Trimborn, 1969, fig. 7), since corners were not bonded. An example of the third use can be seen at certain sites such as 35, 28 and 57, where there are as many as four distinct layers on one wall. These layers average 2 cms thick, but some are as much as 4 cms. Often the layer underneath the top one will show signs of heavy charring. This charring, where visible, occurs in the centre of walls, in corners, and around doors and lintels. It would therefore seem that some kind of ritual burning took place in the room before it was re-modelled.

Plaster may also be used to cover up previous painting, for in sector IX of site 164 a room once painted yellow has a
layer of plain plaster on top. Sherds can be found in the plaster, but they are usually tiny plainware fragments. However, Cuzco style sherds have been noted in a single coat of plaster on the walls of the patio group at site 137, and similarly at site 104, confirming an LH date for these structures.

**Paint** was used for wall decoration which was probably once quite extensive, although little now remains. The chief colours were red, yellow and white, in that order. Generally the walls of a compartment or room were painted in one or the other colour, or in horizontal panels of red and white, as at Tambo Colorado (Guidoni and Magni 1977, p.135). However, sometimes more elaborate designs were used (fig. CVIII a - c). There is no evidence to associate paint exclusively with the better-constructed buildings.

d) **Other Construction Techniques**

A problem encountered in the construction of room clusters was the high degree of slope over which rooms were often built. Such a problem was overcome in one or more of three ways:

i) A room with a sloping floor could be given a small retaining wall across the centre, thus creating two levels. This wall was usually between 0.20 and 0.50 m high.

ii) Walls that were built perpendicular to a steep slope were stepped. Each stepped section was between 0.25 and 0.50 m high. Stepped walls are also found on flat land in the Huaycán sector.
iii) Steps were built up to entrances in order to accommodate changes in level between one room and another. There are usually no more than three connected with a single entrance. The difference in height between one room and another may vary from 0.30 to 0.50 m.

2. **Types of Structure**

   a) **Room Clusters**

   These are varying-sized groups of agglutinated rooms and small courtyards. The area of the courtyards is usually under 100 m². Most rooms contain subterranean compartments and pits. Some have above-ground compartments as well. The shape of the cluster is irregular, as is the shape of the individual room (S.P. 11 and 17). These rooms have been added to one another without any overall design scheme behind the growth of the cluster, whose potential for expansion appears to be limited only by a steep drop to the water channel.

   Because of destruction and looting at all sites, it is difficult to ascertain the boundaries of these clusters without a thorough excavation of all the walls. Passageways between clusters can be traced at sites 84 and 137 (S.P. 3B), where certain clusters do seem to stand out from others. However, at other sites, e.g. 110 (S.P. 16), there appears to be no separation.

   Entries are also difficult to verify because of the destruction of the walls, which are now only a few centimetres high in some cases. On the site plans this results in access patterns appearing more restricted than they actually were, (cf. Moseley and Mackey 1974). Furthermore, entrances often
had a high threshold step. If the walls were destroyed down to 0.50 m or less, it might be assumed that there was no access between rooms. Some of the rooms were evidently sealed off by blocking the doorway. Others appear to have been purposely built without an entrance, in which case access was probably by stairs over the wall, or projecting stone steps. An examination of the best-preserved clusters at sites 136 and 137 shows that there were usually multiple entries to each one. Sometimes these entries led directly to a courtyard and sometimes to a narrow passage (S.P. 4). At the same time the rooms of the cluster were not always intercommunicating, each section having its own entry, so that the cluster resembles a row of terrace houses.

During the LH there was a change in design concept and the room clusters were constructed on a rectangular plan. This is apparent at site 136, where there are sixteen rectangular clusters, spaced out evenly over a grid of eight intersecting streets (S.P. 4). There is a similar LH rectangular cluster at site 137 (S.P. 3A).

b) **Patio Groups**

These are better constructed room clusters with rectangular rooms attached to large courtyards over 100 m². These courtyards usually have benches around one or more sides (S.P. 6 and 8) and are accessible via passageways from the exterior or by crossing several rooms. Patio groups are usually joined to room clusters, as at sites 35, 57, 28, 104 and 137, (S.P. 3A, 8, 9, 10, 14). As with room clusters, it is sometimes impossible to verify their boundaries.
At sites 35 and 57 in the Huaycán sector the courtyards are built in a series of two or three, i.e. a lower one with two upper ones overlooking it. These upper courtyards are reached by ramps or steps. This construction is seen on a grander scale at Tauri Chumbi and JB at Pachacamac (Bueno 1978b, pp.66, 70-71). It is also found at some late sites in the Manchay sector (Bonavía 1965, pp.20-21), but site 57 is the upvalley limit of its occurrence.

Two unusual courtyards are found at sites 137 and 164 (S.P. 1 and 3B). At these sites a large, quasi-rectangular courtyard is attached to a room cluster and contains a long rectangular building at its north end. This building has one or two entrances leading to the courtyard. There is another rectangular building divided into two or three rooms at the east or west side of the courtyard. At site 137 the north rectangular building is the gabled structure. Its counterpart at site 164 is of similar size, but has only one door and smaller windows.

c) Shrines

These are considered to be places of worship where a particular huaca was exhibited. They take different forms in the study area. In the Chontay and Sisicaya sectors they are located on ridge tops or upper hill slopes. At sites 164, 177 and 90 they are separated from the rest of the site by a small wall, about 1 m high, which has an entry to control access. There is often a stepped platform at the summit of these sites and burials in pits on lower platforms. At site 164 there are also two paved courtyards and two levelled areas.
At sites 137, 177 and 343 there are one or two platforms, over 10 m long and 5 m wide, which are set into the upper hill slope. These platforms have a bench at the back and tomb complexes behind them.

Downvalley in the Huaycán sector at sites 35 and 57 there is a series of large platforms that extend upwards from the base of the slope (S.P. 9 and 10). Bonavía has studied similar platforms at Pampa de las Flores and Potrero de Santa Lucía in Manchay and Cieneguilla, (op. cit., pp.34-35; láminas 6 and 7). He suggests that they are for the purpose of drying maize and other vegetables. Peasants in the valley today dry maize in a corral or an open space in front of their house, and vegetables on the roof. It is possible that maize, vegetables, etc. from fields dedicated to a particular huaca might have been dried on these platforms. Nevertheless my interpretation that they are shrines is based on a comment by Calancha (1638, book II, chap. 3, p.326), who states, when speaking of a huaca at Calango:-

"Está una peña muy grande de más de 12 pies de largo en un altillo de ladera sobre unos andenes como grandes pasos de escalera..."

d) Tombs and Cemeteries

Human and possibly llama burials are associated with patio groups, room clusters and shrines. On the other hand, burials are also found separately, usually in tomb groups at the base of the quebrada slope, or on top of small spurs that project from the main ridges. Tombs are also found on house platforms (18A and B). An indication of the size range of these tombs is given in Table 10.
### Table 10

**SINGLE AND MULTI-CHAMBERED TOMBS BUILT ABOVE GROUND AND NOT ASSOCIATED WITH ROOM CLUSTERS OR PATIO GROUPS.**

<table>
<thead>
<tr>
<th>Site</th>
<th>Number Measured</th>
<th>Range in Area m²</th>
<th>Range in Height m</th>
<th>Number of Compartments</th>
<th>Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>8</td>
<td>1.70-06.35</td>
<td>0.36-1.30</td>
<td>1-3</td>
<td>Bones</td>
</tr>
<tr>
<td>169</td>
<td>5</td>
<td>1.54-05.04</td>
<td>0.60-0.90</td>
<td>1-2</td>
<td>Bones, worked shell</td>
</tr>
<tr>
<td>137</td>
<td>11</td>
<td>1.88-22.50</td>
<td>0.40-1.70</td>
<td>1-7</td>
<td>Bones, painted walls</td>
</tr>
<tr>
<td>136</td>
<td>3</td>
<td>1.88-04.00</td>
<td>0.50-0.75</td>
<td>1-2</td>
<td>Bones</td>
</tr>
<tr>
<td>28</td>
<td>5</td>
<td>1.50-06.50</td>
<td>0.53-1.60</td>
<td>1-3</td>
<td>Bones, food refuse, artefacts</td>
</tr>
<tr>
<td>35</td>
<td>11</td>
<td>1.30-06.60</td>
<td>0.50-1.20</td>
<td>1-5</td>
<td>Bones, food refuse, shell artefacts</td>
</tr>
<tr>
<td>57</td>
<td>8</td>
<td>1.96-07.06</td>
<td>0.50-2.00</td>
<td>2-6</td>
<td>Bones, food refuse, shell artefacts</td>
</tr>
<tr>
<td>88</td>
<td>11</td>
<td>3.96-22.50</td>
<td>0.50-1.50</td>
<td>1-3+</td>
<td>Bones</td>
</tr>
<tr>
<td>104</td>
<td>1</td>
<td>14.00</td>
<td>0.50</td>
<td>1/2</td>
<td>Bones, food refuse</td>
</tr>
<tr>
<td>108</td>
<td>3</td>
<td>2.16-05.81</td>
<td>1.00</td>
<td>1</td>
<td>Bones</td>
</tr>
<tr>
<td>109</td>
<td>2</td>
<td>3.84-07.04</td>
<td>0.80-1.70</td>
<td>1-4</td>
<td>Bones</td>
</tr>
<tr>
<td>60/62</td>
<td>1</td>
<td>11.25</td>
<td>--</td>
<td>3</td>
<td>Bones</td>
</tr>
</tbody>
</table>

**N.B.** The number measured refers to the number of architectural groups, not to the number of individual chambers.
It will be seen that tombs are either single rectangular chambers, whose area varies from 1.88 to 4.5 m² and whose height varies from 0.50 to 1.70 m; or groups of chambers clustered together in a variety of shapes: some rectangular, some oval and some "L" shaped (S.P. 8, 9, 10). The groups vary in overall size from 1.3 to 22 m² and in height from 0.50 to 2.00 m. The number of chambers in each group varies from two to seven. Walls are between 0.15 and 0.63 m wide.

The tombs are roofed with stone slabs and the occasional wooden beam, just as the compartments in room clusters. Some tombs were plastered on both the interior and the exterior, in which case they could well have been painted, as were some groups at site 137.

There may be small doors or communicating holes to the exterior. These are often found in the east or the west walls. The doors vary in width from 0.35 to 0.60 m, and in height from 0.30 to 0.58 m. Some chambers may also have an interior door or communicating hole to another chamber.

Varying numbers of people were buried in these tombs but, because of the extensive looting, it is not certain that the number of crania found in a single tomb represents the number of persons buried there. Many bones seem to have been thrown back in a haphazard manner. At sites 35 and 57 as many as ten crania have been observed in one chamber; at site 137 as many as thirty crania.

All these tombs can be dated as late LIP to LH. Earlier LIP tombs can be identified on the basis of the sherds scattered around them. They are in similar locations to the later ones, but are oval in shape and clustered like a honeycomb. They
are often semi-subterranean and roofed in the "beehive" fashion described in Chapter Four. Entry holes are at the side and possibly in the roof.

One unusual tomb is found at site 137 (S.P. 3A). Here an irregularly shaped courtyard, enclosed by a wall over 1 m high, has a single entrance flanked by two small rectangular rooms. Inside is a further enclosure with another entrance. Inside the second enclosure is a rectangular chamber, 2.5 by 4.0 m. This chamber was once plastered and painted red, yellow and black.

3. Architectural Features

These occur in room clusters, patio groups and occasionally tombs. The range of variation in the size of a particular feature is presented in the appropriate table.

a) Entrances

A distinction has been made between entrances and doors:-- the former term refers to a purposely constructed gap that is not spanned by a lintel; the latter term refers to a gap that is spanned by a lintel. Because of the condition of the walls at most sites, it is not always possible to tell whether the gap was a door or an entrance. At well-preserved sites, like site 136, a lintel is often lying in an adjacent room, and therefore nine of the gaps classified as entrances at that site are probably doors. Elsewhere the debris is so great that a lintel may well be hidden.

How much of a functional distinction there is between doors and entrances is open to question. One might argue that a door implies a more restricted access than an entrance and allows
less light and air to circulate if the building is roofed, (cf. Kendall, 1976, p.34). One might also expect that entrances allow access from the exterior to an ante-chamber or a courtyard, and that doors give access to interior rooms. To a certain extent this is true of the large patio groups at site 57. In the Conjunto de las Ventanas a large trapezoidal entrance leads from an exterior path to the room with the five windows, but a door leads from this room to an interior passage. In the Conjunto de los Nichos there are entrances to the large rooms surrounding the central courtyard, but doors in the labyrinth of small rooms on an upper level. However at sites 136 and 84, the only other sites with a large number of measurable doors, there is no set pattern, for some doors give access from the exterior and some entrances give access to interior rooms.

The walls of the average entrance range from 1.50 to 2.00 m in height. This is borne out by the number of original wall heights that could be measured at site 136. The width of an entrance varies from 0.33 to 1.88 m, with an average of about 0.60 m. However entrances over 1 m wide are rare.

The architectural features associated with entrances are threshold steps and projecting stones, bones and branches. Threshold steps vary in height from 0.20 to 0.68 m and are often the result of remodelling, where a new entrance has been created on top of an old wall (S.P. 12A, B and C). If the step is high, it tends to restrict access to a room.
### TABLE 11

**ENTRANCES**

<table>
<thead>
<tr>
<th>Site</th>
<th>Number Measured</th>
<th>Range in Height of Wall</th>
<th>Range in Width of Entrance</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>51</td>
<td>&gt;1.00</td>
<td>0.33-1.20</td>
</tr>
<tr>
<td>169</td>
<td>1</td>
<td>&gt;2.00</td>
<td>0.75</td>
</tr>
<tr>
<td>137</td>
<td>22</td>
<td>&gt;1.46</td>
<td>0.32-1.88</td>
</tr>
<tr>
<td>136</td>
<td>130</td>
<td>1.65-2.00</td>
<td>0.40-1.05</td>
</tr>
<tr>
<td>135</td>
<td>3</td>
<td>&gt;0.70</td>
<td>0.80-1.00</td>
</tr>
<tr>
<td>66</td>
<td>1</td>
<td>&gt;1.00</td>
<td>0.80</td>
</tr>
<tr>
<td>28</td>
<td>13</td>
<td>&gt;1.51</td>
<td>0.54-1.01</td>
</tr>
<tr>
<td>35</td>
<td>5</td>
<td>&gt;1.00</td>
<td>0.61-1.00</td>
</tr>
<tr>
<td>57</td>
<td>10</td>
<td>1.50-2.45</td>
<td>0.55-1.10</td>
</tr>
<tr>
<td>71</td>
<td>x</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>87</td>
<td>5</td>
<td>&gt;1.55</td>
<td>0.70-1.10</td>
</tr>
<tr>
<td>96</td>
<td>4</td>
<td>&gt;1.00</td>
<td>0.40-0.56</td>
</tr>
<tr>
<td>84</td>
<td>59</td>
<td>0.76-2.00</td>
<td>0.36-0.90</td>
</tr>
<tr>
<td>86</td>
<td>9</td>
<td>&gt;0.50</td>
<td>0.40-0.90</td>
</tr>
<tr>
<td>104</td>
<td>14</td>
<td>1.00-2.00</td>
<td>0.34-0.80</td>
</tr>
<tr>
<td>108</td>
<td>2</td>
<td>1.20-2.00</td>
<td>0.52-1.11</td>
</tr>
<tr>
<td>110</td>
<td>18</td>
<td>0.70-1.80</td>
<td>0.40-1.20</td>
</tr>
<tr>
<td>113</td>
<td>3</td>
<td>1.10</td>
<td>0.37-0.83</td>
</tr>
<tr>
<td>109</td>
<td>3</td>
<td>&gt;1.00</td>
<td>0.60-1.20</td>
</tr>
<tr>
<td>353</td>
<td>1</td>
<td>&gt;1.00</td>
<td>0.55</td>
</tr>
</tbody>
</table>

**Notes to the Architectural Feature Tables**

1. All measurements are in metres.

2. The number measured bears no relation to the number of times the feature occurs at a site. Only the most obvious and most accessible examples were measured, so that the true range of variation is not reflected in these figures.

3. Site 88 has no features and has been omitted from the tables.

4. — = The measurement was not made.

5. x = The feature was noted at the site in question, but was not measured.
a) **Entrances** (cont.)

Entrances may also be associated with small flights of steps. As explained previously, these steps occur between two rooms on different levels.

The more interesting associated features are the projecting stones, bones and branches. At several sites, such as 164, 137 and 136, these are placed on one or both sides of an entrance, about 0.10 m from the jamb and between 0.63 and 1.00 m above ground level. At site 136 there is a set of three camelid bones placed down one side of an entrance, at 0.06, 0.33 and 0.73 m above ground level. There are also pairs of projecting branches, one either side of another entrance, at a height of 0.55 and 1.31 m above ground level. These projections probably supported a cane or wooden bar across the door. It is likely that curtains hung from these canes (see note 11). A single projection probably had some object suspended from it.

b) **Doors**

Doors gave access to smaller rooms from large courtyards, and from the exterior to an interior room. Their height varies considerably, from 0.65 to 2.26 m, and averages 1.50 m. Any door below 1.20 m in height is considered a miniature door. These have been particularly noted at sites 57, 84 and 104, where they give access to very small interior rooms. Since they make access difficult, it is assumed that they led to sacred or private apartments that may have housed a *huaca*. 
<table>
<thead>
<tr>
<th>Site No.</th>
<th>Range in Height of Door</th>
<th>Range in Width of Door</th>
<th>Range in Depth of Door</th>
<th>Lintel</th>
<th>Associated Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>8</td>
<td>1.30-1.70</td>
<td>0.40-0.70</td>
<td>0.27-0.41</td>
<td>1 or 2 stones Projecting stone, branch bone, steps.</td>
</tr>
<tr>
<td>137</td>
<td>4</td>
<td>1.20-1.42</td>
<td>0.44-1.60</td>
<td>0.40-0.80</td>
<td>1 or 2 stones Niche.</td>
</tr>
<tr>
<td>136</td>
<td>2</td>
<td>1.37-1.57</td>
<td>0.48-0.64</td>
<td>0.27-0.40</td>
<td>1 or 2 stones Niche, projecting branches and stones in pairs.</td>
</tr>
<tr>
<td>28</td>
<td>9</td>
<td>1.25-1.85</td>
<td>0.59-0.99</td>
<td>0.30-0.39</td>
<td>1 or 2 stones Projecting stone, high plastered step.</td>
</tr>
<tr>
<td>35</td>
<td>1</td>
<td>1.50</td>
<td>0.80</td>
<td>--</td>
<td>1 stone --</td>
</tr>
<tr>
<td>57</td>
<td>30</td>
<td>0.71-2.26</td>
<td>0.32-0.89</td>
<td>0.33-0.75</td>
<td>1 to 3 stones, 1 stone with 1 branch, 5 canes. Niche, projecting stones, steps.</td>
</tr>
<tr>
<td>71</td>
<td>3</td>
<td>1.39-1.70</td>
<td>0.75-0.90</td>
<td>--</td>
<td>1 or 2 stones Steps.</td>
</tr>
<tr>
<td>96</td>
<td>8</td>
<td>1.20-1.54</td>
<td>0.50-0.77</td>
<td>0.28-0.51</td>
<td>1 stone Projecting branch, steps.</td>
</tr>
<tr>
<td>84</td>
<td>76</td>
<td>0.65-1.93</td>
<td>0.35-0.82</td>
<td>0.24-0.60</td>
<td>1 or 2 stones, 1 stone with 1 branch, 1 branch, 6 canes Projecting stone, branches, bones, steps.</td>
</tr>
<tr>
<td>104</td>
<td>1</td>
<td>0.90</td>
<td>0.42</td>
<td>0.34</td>
<td>1 stone Steps.</td>
</tr>
<tr>
<td>110</td>
<td>3</td>
<td>1.20-1.55</td>
<td>0.61-0.80</td>
<td>0.29-0.39</td>
<td>1 stone Steps.</td>
</tr>
</tbody>
</table>
The width of doors is governed by the amount that a single lintel can span. Since the majority of lintels are large stone slabs, which are more difficult to raise and position than wooden beams or caña de Guayaquil, the width of doors is necessarily restricted to an average of 0.50 m. The largest door in the study area is one at site 57, between a passage and the room with the windows. Here a single stone lintel spans a width of 0.89 m at a height of 2.26 m. There is an equally wide door at site 71, but it is lower, and the stone lintel rested on projecting stones rather than spanning the whole door width. The only other wide door is one of the pair in the southwest wall of the gabled structure. This door is 1.60 m wide. Like its counterpart, it probably had wooden beams for a lintel. These beams have now vanished.

Most lintels consist of one or two stones, depending on the width of the wall, i.e. the depth of the door. Any gap between two lintels on their underside may be filled in with smaller stones and mortar. The whole door is then covered with plaster. Sometimes the stone lintel rests on two projecting stones, one on either side of the door. This happens at most sites, when the chosen lintel is not long enough to span the door comfortably. Examples of other lintel material are the two wooden beams from site 137; one stone and one wood beam used together at sites 57 and 84; a single wood beam from the latter site; five caña brava laid side by side at site 57; and six caña de Guayaquil laid side by side at site 84. The use of canes for lintels is commoner downvalley in the Manchay sector (Bonavía, op. cit., p.77).
The shape of the door also varies, randomly. At most sites, such as 164, 84, 57 and 136, there are doors which are slightly trapezoidal, the base being 0.10 m wider than the top. However the width of the base is between 0.50 and 0.70 m, which is less than the standard Inca measurement (Kendall 1976, p.33). Given the variety in door shape at these sites, the apparent trapezoid is fortuitous rather than an intentional imitation of the Inca architectural canons. An exception is found at site 57 and will be discussed later. The other shapes are: a rectangle, an inverted trapezoid, a slightly rounded shape like an inverted egg, and some that are completely irregular.

Doors also have varied associations. Two at sites 57 and 136 have small niches above them. Others at the same sites and site 84 have projecting stones, branches or bones on both sides of the jamb at lintel level. There can also be another pair of projections at waist height. It has already been suggested that these were for the purpose of hanging a make-shift door or curtain from a cane. At waist height there could have been a wooden bar or a cane to prevent access. In other cases there is only a single peg of one of the above-mentioned materials on one side of the door at lintel level. Small objects were probably suspended from these pegs. Doors are also associated with small flights of steps, and even an unnecessarily high step at the threshold. This latter feature prevents easy access to the room, which usually contains subterranean compartments.
c) **Entrances and Doors with Barholds**

Most of these entrances were probably doors. They are found at only two sites, 137 and 136. Of the ten examples, seven have a semi-recessed doorway and one a fully-recessed doorway. The other two examples have no recess.

The only fully-recessed pre-Columbian door in the study area is found at site 137, in the southwest wall of the gabled structure. In this door the section closer to the courtyard is 0.84 m wide. The section closer to the main room is 1.24 m wide. In each jamb of the narrow section, 0.60 m above the threshold, is a small niche, 0.13 by 0.12 m. This niche is 0.25 m deep. In the west jamb of the wide section, at a similar height, there is another niche 0.15 x 0.10 m, and 0.06 m deep. There was probably a corresponding one on the east jamb, but this has been destroyed. In another part of the site is a door with a small niche in a non-recessed jamb. This niche is 0.80 m above ground level.

At site 136 seven doors are recessed on one jamb only. The total depth of this jamb varies from 0.38 to 0.60 m. In the recessed section there is a small square hole, 0.10 x 0.10 m and between 0.57 and 0.86 m above ground level. One of the holes looks purposely circular, as if a cane or branch were to be placed there. The opposite jamb is not recessed, nor does it appear to have a hole/niche in it, although in two instances there is a projecting stone or branch nearby on which a wooden bar could have rested.

The function of these niches was to hold a cross bar which would prevent easy access to certain rooms. In all the above examples there are no projecting stones at lintel or
at waist level. Therefore it is unlikely that there were curtains as well as barholds.

### TABLE 13

DOORS WITH BARHOLDS

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Range in Height of Door</th>
<th>Range in Width of Door</th>
<th>Range in Depth of Door</th>
<th>Re-ceded</th>
<th>Not re-ceded</th>
<th>Height of barhold from ground in m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>137</td>
<td>2</td>
<td>1.25-1.69</td>
<td>0.60-1.24</td>
<td>1</td>
<td>1</td>
<td>0.60-0.80</td>
</tr>
<tr>
<td>136</td>
<td>8</td>
<td>0.95-1.50</td>
<td>0.52-0.78</td>
<td>7</td>
<td>1</td>
<td>0.57-0.86</td>
</tr>
</tbody>
</table>

d) Sealed Doors and Entrances

These are found at most sites except for those that are of demonstrably short occupation, such as sites 66, 86 and 104. Most sealed doors and entrances are blocked up with stones and mortar, but at site 136 adobes are used as well. The wall is usually replastered to give a smooth surface. Even today it is common for peasants in the study area to seal doors and windows in this way. Such sealing denotes a change of function: from a living-room to a store-room.
### TABLE 14

**SEALED DOORS AND ENTRANCES**

<table>
<thead>
<tr>
<th>Site</th>
<th>No.</th>
<th>Range in Door/Entrance Height</th>
<th>Range in Door/Entrance Width</th>
<th>Associated Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>8</td>
<td>0.93-1.43</td>
<td>0.35-0.60</td>
<td>Projecting stone steps, projecting stones.</td>
</tr>
<tr>
<td>137</td>
<td>3</td>
<td>2.00</td>
<td>0.53-0.75</td>
<td>--</td>
</tr>
<tr>
<td>136</td>
<td>8</td>
<td>0.70-1.70</td>
<td>0.31-1.10</td>
<td>Walls perpendicular to sealed doors.</td>
</tr>
<tr>
<td>28</td>
<td>8</td>
<td>1.10-2.00</td>
<td>0.55-0.93</td>
<td>Beam holes in fill. Compartments.</td>
</tr>
<tr>
<td>35</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>57</td>
<td>11</td>
<td>0.94-1.75</td>
<td>0.49-0.82</td>
<td>Niche, Compartment, window.</td>
</tr>
<tr>
<td>71</td>
<td>1</td>
<td>1.50</td>
<td>0.60</td>
<td>Window.</td>
</tr>
<tr>
<td>87</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>96</td>
<td>1</td>
<td>--</td>
<td>0.40</td>
<td>--</td>
</tr>
<tr>
<td>84</td>
<td>19</td>
<td>1.05-2.25</td>
<td>0.41-1.10</td>
<td>Window, niches, projecting bone, roof stones, wood, steps.</td>
</tr>
<tr>
<td>110</td>
<td>5</td>
<td>0.90-0.20</td>
<td>0.54-0.90</td>
<td>--</td>
</tr>
<tr>
<td>113</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

**N.B.** This feature was probably present at sites 109, 135, 108 and 109.
d) **Sealed Doors and Entrances (cont.)**

The dimensions of these doors and entrances are not always easy to ascertain. Their measurements generally fall within the range given for entrances and doors. Lintels were usually of stone.

At sites 57, 71 and 84 some doors were only sealed half way, leaving a gap at the top. This gap or window overlooked another room or a compartment, with which it was probably the only means of communication. The height of these windows varied between 0.45 and 0.64 m. In addition, new features were often created in the fill as the entrance was being sealed. Examples of additional features can be seen in S.P. 12A, d and C. They include projecting stone steps, niches, projecting stones, bones and branches, and stones for roofing. The purpose of the sealed doors was to change the room they sealed into a tomb. This is evident on the above-mentioned site plans.

e) **Niches**

Niches are rarely very large or very small. Most are about 0.20-0.30 m wide and 0.15-0.20 m high. They can be found in any wall of a room and do not appear to be associated with the orientation of the entrance. Usually they are between 0.50 and 1.50 m above floor level, but they may be lower down if they are in a subterranean or an above-ground compartment. In a few cases, at sites 57, 84 and 13b, they are placed over doors and are 2 m or more above ground level. None has a trapezoidal shape.
Niches invariably have a lintel, which is usually a single block of stone that has been plastered over. There are other materials. At site 136, there are two examples of adobe blocks used as lintels. At site 57 there are three niches spanned by caña brava stalks that have been split into halves. At site 84 one niche has an outer stone lintel and an inner wood one. Furthermore at the same site a single stone slab spans a pair of niches 0.10 m apart.

At sites 57, 84 and 136 niches occur in pairs, a few centimetres apart. There may be two pairs in the same wall, or a pair each in adjacent or opposite walls. On other occasions the two niches are set diagonally in the wall. Two niches may also be in the same wall, but over 1.50 m apart and seemingly unconnected.

Niches are also found inside and over subterranean and above-ground compartments, below friezes and in sealed doors. They are not usually closer than 1.00 m to an entrance, except where they are placed above it.

Projecting stones, bones and branches are associated with some niches and can be within 0.30 m of the sides. These pegs are found on a level with the base of the niche, on a level with the lintel, or else above the niche itself. In one wall at site 136 there are two niches, 1.00 m apart, with five projecting stones and one projecting branch arranged between and around them. At site 84 one particularly large niche, 0.52 m wide, 0.46 m high and 0.53 m deep, is set 1.10 m above a bench in a large courtyard.
### TABLE 15

**NICHES**

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Range in Height (m)</th>
<th>Range in Width (m)</th>
<th>Range in Depth (m)</th>
<th>Height above Ground (m)</th>
<th>Associated Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>0.08-0.35</td>
<td>0.10-0.32</td>
<td>0.20-0.30</td>
<td>ground level to 1.63 m</td>
<td>Projecting branch, doors, compartments.</td>
</tr>
<tr>
<td>137</td>
<td>0.34</td>
<td>0.30-0.64</td>
<td>0.40</td>
<td>0.30</td>
<td>Doors.</td>
</tr>
<tr>
<td>136</td>
<td>0.07-0.45</td>
<td>0.10-0.30</td>
<td>0.10-0.40</td>
<td>0.15-1.65</td>
<td>Projecting stones and branches, doors.</td>
</tr>
<tr>
<td>28</td>
<td>0.18-0.24</td>
<td>0.13-0.35</td>
<td>0.15-0.35</td>
<td>0.26-0.70</td>
<td>Compartments.</td>
</tr>
<tr>
<td>35</td>
<td>0.50</td>
<td>0.25</td>
<td>--</td>
<td>--</td>
<td>Subterranean compartments.</td>
</tr>
<tr>
<td>57</td>
<td>0.09-0.53</td>
<td>0.13-0.56</td>
<td>0.17-0.50</td>
<td>0.17-2.40</td>
<td>Subterranean compartments.</td>
</tr>
<tr>
<td>71</td>
<td>0.07-0.18</td>
<td>0.09-0.27</td>
<td>0.12-0.17</td>
<td>0.70-1.35</td>
<td>Compartments, projecting stones.</td>
</tr>
<tr>
<td>96</td>
<td>0.08-0.21</td>
<td>0.15-0.20</td>
<td>0.15-0.16</td>
<td>0.76-1.16</td>
<td>Compartments.</td>
</tr>
<tr>
<td>84</td>
<td>0.07-0.46</td>
<td>0.12-0.52</td>
<td>0.12-0.32</td>
<td>0.50-2.05</td>
<td>Benches, compartments, sealed doors.</td>
</tr>
<tr>
<td>88</td>
<td>0.38</td>
<td>0.27</td>
<td>0.40</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>108</td>
<td>0.13-0.17</td>
<td>0.17-0.22</td>
<td>0.14-0.27</td>
<td>0.35-0.83</td>
<td>--</td>
</tr>
<tr>
<td>110</td>
<td>0.14-0.21</td>
<td>0.20-0.35</td>
<td>0.22-0.36</td>
<td>0.15-0.56</td>
<td>Compartments.</td>
</tr>
</tbody>
</table>

**N.B.** Niches were probably present at sites 169, 135, 66, 87, 86, 104, 113, 109 and 353.
e) **Niches (cont.)**

The function of niches was to serve as a repository for objects of a personal, sacred or ceremonial nature (cf. Kendall 1976, p.41). This is particularly true of those found in subterranean compartments that contained burials. In the adjacent niche there was usually some object wrapped in cotton wool, e.g. a quipu. It is doubtful that niches ever held anything akin to a lamp or torch, because the surface of the interior is never charred. It is possible that the very small niches, measuring 0.10 by 0.10 m, may have been rests for roofing beams.

f) **Windows**

There are few windows in the study area and it is unlikely that they all had the same function, since there is a considerable size variation within a site. Most of the larger windows can be found in demonstrably LH structures, but none has a trapezoidal shape.

At site 137 the four windows are in the gabled structure. They are all rectangular, with lintels of stone or branches, and are larger than the average niche. The two in the southwest wall command a view of the main river valley.
### TABLE 16

**WINDOWS**

<table>
<thead>
<tr>
<th>Site</th>
<th>No.</th>
<th>Range in Height</th>
<th>Range in Width</th>
<th>Range in Depth</th>
<th>Height above ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>7</td>
<td>0.10-0.45</td>
<td>0.12-0.40</td>
<td>0.30-0.40</td>
<td>1.12-2.30</td>
</tr>
<tr>
<td>137</td>
<td>4</td>
<td>0.53-0.58</td>
<td>0.47-0.60</td>
<td>0.60-0.65</td>
<td>1.00</td>
</tr>
<tr>
<td>136</td>
<td>7</td>
<td>0.13-0.40</td>
<td>0.14-0.41</td>
<td>0.30-0.55</td>
<td>0.98-1.88</td>
</tr>
<tr>
<td>57</td>
<td>6</td>
<td>0.25-0.60</td>
<td>0.37-0.70</td>
<td>0.64-0.75</td>
<td>1.20-1.50</td>
</tr>
<tr>
<td>84</td>
<td>4</td>
<td>0.10-0.46</td>
<td>0.14-0.46</td>
<td>0.23-0.33</td>
<td>1.10</td>
</tr>
</tbody>
</table>
f) **Windows (cont.)**

At site 164 there are two comparable windows in a building that is the counterpart of the gabled structure. They are set high up, at about 2.30 m above ground level, and are slightly smaller than the windows at site 137. The other structure in the same courtyard also has a small window, 1.52 m above ground level. The other four windows are in a large room cluster above subterranean compartments. They overlook other rooms.

At site 136 two small windows, 0.25 by 0.29 m, are 1.88 m or more above ground level and could not have provided a view. The four large ones, about 0.40 by 0.40 m, are all in block 43 and overlook the street to the east. Their exact height above ground level cannot be verified because of the debris in the rooms.

Most windows at site 84 are small, 0.10 by 0.15 m, and overlook rooms at a lower level below. Their location and small size give them the appearance of peep holes, but a larger window is similarly placed.

At site 57 five of the windows occur in the same room, giving the name of **Conjunto de las Ventanas** to the complex. These windows are the largest in the valley: about 0.60 m high and 0.65 m wide. They are 1.20 m above the ground and overlook narrow passages, although four also provide a good view onto the main river valley. They all have stone lintels. These windows and the large ones at sites 137 and 136 had the function one normally associates with windows, i.e. to give a view and to let in light and air. The function of the smaller ones is less clear, for some
are too high for anyone to look out of them. Those placed lower down probably functioned as a means of communication between two rooms, much like a modern hatch.

g) Communicating Holes

These differ from windows in two ways: i) they are usually smaller, and ii) they lead to above-ground or subterranean compartments. They may also communicate between compartments. The category includes the gap left in sealed doors. At site 164 one of the communicating holes has the height of a miniature door, but was classified as a communicating hole because it led to a small roofed compartment rather than a room.

Two standard holes can be seen on S.P. 188. Here they communicated from the exterior to the separate chambers of an above-ground compartment which was used as a tomb. At site 136 these holes tend to be at ground level, or just above, and always lead to a sealed compartment. On other occasions, as can be seen on S.P. 188, they are placed up to 1.00 m above ground level.

The holes are usually small, less than 0.30 by 0.30 m, and are constructed like small niches with stone lintels. They all lead to compartments that usually had no other means of access, except for projecting stone steps in some instances. Many compartments had bones in them (see Table 32).
<table>
<thead>
<tr>
<th>Site No.</th>
<th>Range in Height</th>
<th>Range in Width</th>
<th>Range in Depth</th>
<th>Height above Ground</th>
<th>Associated Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>0.31-0.93</td>
<td>0.26-1.00</td>
<td>0.20-0.96</td>
<td>Ground level</td>
<td>All communicate with subterranean compartments.</td>
</tr>
<tr>
<td>136</td>
<td>0.13-0.25</td>
<td>0.14-0.36</td>
<td>0.16-0.44</td>
<td>Ground level</td>
<td>All lead to above-ground compartments.</td>
</tr>
<tr>
<td>57</td>
<td>0.27</td>
<td>0.37</td>
<td>--</td>
<td>Ground level</td>
<td>Leads to a subterranean compartment.</td>
</tr>
<tr>
<td>96</td>
<td>0.43</td>
<td>0.33</td>
<td>0.19</td>
<td>0.37 from roof of compartment.</td>
<td>Leads to a subterranean compartment.</td>
</tr>
<tr>
<td>71</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Top half of sealed door.</td>
</tr>
<tr>
<td>84</td>
<td>0.50</td>
<td>0.64</td>
<td>0.33</td>
<td>--</td>
<td>Top half of sealed door.</td>
</tr>
<tr>
<td>104</td>
<td>0.35-0.49</td>
<td>0.34-0.42</td>
<td>0.22-0.36</td>
<td>Ground level</td>
<td>All lead to compartments.</td>
</tr>
<tr>
<td>108</td>
<td>0.30</td>
<td>0.22</td>
<td>0.30</td>
<td>Ground level</td>
<td>All lead to above-ground compartments.</td>
</tr>
<tr>
<td>110</td>
<td>0.17-0.20</td>
<td>0.19-0.20</td>
<td>--</td>
<td>0.70</td>
<td>All lead to above-ground compartments.</td>
</tr>
<tr>
<td>109</td>
<td>0.25-0.27</td>
<td>0.22-0.28</td>
<td>0.18-0.22</td>
<td>0.80-1.00</td>
<td>All lead to above-ground compartments.</td>
</tr>
</tbody>
</table>

N.B. Communicating holes were probably present at sites 169, 137, 28, 135, 87, 113, and 353.
g) **Communicating Holes** (cont.)

The purpose of these holes was to communicate with the dead. Certainly in most cases it would be impossible for a human being to enter a compartment through a communicating hole or to remove a mummy through one. It would be possible, however, to make offerings of food and drink through them and for religious personnel, such as a local shaman, to use them to address the spirits of the departed. It was probably imagined that the holes between subterranean compartments allowed the spirits of the dead to communicate with one another.

h) **Projecting Stones**

These are single stones found projecting from walls. They have been observed at most late sites and appear to function as pegs from which to hang objects. They are found in subterranean and above-ground compartments, over benches and close to niches.

They may be incorporated into the building of sealed entrances, (S.P. 12A, B and C) and are also found at lintel level on either side of a door. Those in compartments are from 0.30 to 0.50 m above ground level. Those in the walls of rooms are from 1.00 to 1.50 m above ground level.

Coca bags filled with coca leaves have been found hanging from these pegs in tombs in the study area (see note 28). Other possible objects for suspension are figurines (fig. XCIX a - d), which have holes drilled in their shoulders, and small vessels.
### TABLE 18

**PROJECTING STONES**

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Range in Amount</th>
<th>Range in Height</th>
<th>Range in Width</th>
<th>Height above Ground</th>
<th>Associated Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>14</td>
<td>0.06-0.13</td>
<td>0.03-0.09</td>
<td>0.04-0.12</td>
<td>0.24-1.66 Walls, sealed doors, compartments.</td>
</tr>
<tr>
<td>137</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>136</td>
<td>45</td>
<td>0.03-0.18</td>
<td>0.01-0.20</td>
<td>0.02-0.20</td>
<td>0.45-1.40 Niches, projecting branches, compartments.</td>
</tr>
<tr>
<td>66</td>
<td>4</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1.10-1.45 Walls of courtyard and of rooms.</td>
</tr>
<tr>
<td>28</td>
<td>10</td>
<td>0.08-0.18</td>
<td>0.02-0.14</td>
<td>0.04-0.22</td>
<td>0.40-1.80 Doors, subterranean compartments, benches.</td>
</tr>
<tr>
<td>35</td>
<td>1</td>
<td>0.24</td>
<td>0.10</td>
<td>0.10</td>
<td>1.40 Compartment</td>
</tr>
<tr>
<td>57</td>
<td>3</td>
<td>0.10</td>
<td>--</td>
<td>--</td>
<td>1.35-1.50 Niches, subterranean compartments.</td>
</tr>
<tr>
<td>71</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1.00 Niche and compartment.</td>
</tr>
<tr>
<td>96</td>
<td>4</td>
<td>0.10-0.11</td>
<td>--</td>
<td>--</td>
<td>0.66-2.50 Sealed door, compartment.</td>
</tr>
<tr>
<td>84</td>
<td>17</td>
<td>0.05-0.20</td>
<td>0.05-0.14</td>
<td>0.02-0.08</td>
<td>0.70-2.00 Doors, niches, compartments, projecting bone.</td>
</tr>
<tr>
<td>88</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>0.60 Above ground compartment.</td>
</tr>
<tr>
<td>110</td>
<td>2</td>
<td>0.19</td>
<td>--</td>
<td>--</td>
<td>1.00-1.10 Subterranean compartment.</td>
</tr>
</tbody>
</table>

N.B. Projecting stones were probably present at sites, 169, 135, 87, 108, 113, 109, and 353.
h) Projecting Stones (cont.)

In the Bandelier collections from Pachacamac some vessels had strings attached to both handles, presumably so that they could be suspended from something. Two pegs, a metre or more apart in a wall, could have been used to hang a painted cloth or tapestry. Similar cloth, or even wooden panels, could have been hung over doorways where the stones are at lintel height. Gourds, which also have holes drilled in them, could have been hung from individual pegs. All these possibilities, with the exception of vessels filled with food, are reasonably lightweight and could have been suspended from stone, bone or wooden pegs.

i) Projecting Bones

Similar comments apply to projecting camelid bones, which are set from 1.00 to 1.50 m above ground level. There are two kinds of bones used, the long bones and the mandible. The former are set in a wall, on either side of an entrance, or in compartments. The mandible is always placed with both rami embedded in the wall, so that it projects like a handle. It is usually placed in compartments and in the corners of rooms.
### TABLE 19
PROJECTING BONES

<table>
<thead>
<tr>
<th>Site</th>
<th>No.</th>
<th>Amount Projecting</th>
<th>Height above ground</th>
<th>Associated Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>6</td>
<td>0.04-0.06</td>
<td>0.34-1.36</td>
<td>Doors, sealed doors, subterranean compartments.</td>
</tr>
<tr>
<td>137</td>
<td>7</td>
<td>--</td>
<td>0.51-1.20</td>
<td>Entrances, subterranean compartments.</td>
</tr>
<tr>
<td>136</td>
<td>10</td>
<td>0.03-0.08</td>
<td>Ground level - 1.42</td>
<td>Entrances, corners, niches.</td>
</tr>
<tr>
<td>57</td>
<td>1</td>
<td></td>
<td></td>
<td>Bench with subterranean compartments.</td>
</tr>
<tr>
<td>71</td>
<td>1</td>
<td>--</td>
<td>1.46</td>
<td>Corners.</td>
</tr>
<tr>
<td>84</td>
<td>14</td>
<td>0.05-0.06</td>
<td>0.21-1.56</td>
<td>Doors, sealed doors, niches.</td>
</tr>
<tr>
<td>110</td>
<td>1</td>
<td>0.03</td>
<td>1.27</td>
<td>--</td>
</tr>
</tbody>
</table>

N.B. Projecting bones were probably present at sites 169, 135, 28, 35, 87, 108, 113, 109.
j) **Projecting Branches**

Narrow branches, from 0.02 to 0.10 m in diameter, are used in two ways:— Either a bent branch will project out like a hook, or else two ends of a forked branch will be embedded in the wall, so that the apex of the triangle will project out in the way that the camelid mandible did. This suggests that there were occasions when a handle type peg was more desirable than a simple peg. These wooden pegs are found in the same positions as the stone and bone pegs and appear to have been interchangeable with them. For example, a projecting branch might be on one side of the door jamb and a projecting stone on the other side.
<table>
<thead>
<tr>
<th>Site</th>
<th>No.</th>
<th>Anoun</th>
<th>Range in Pro-</th>
<th>Diameter</th>
<th>Height above</th>
<th>Associated Features</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>tecting</td>
<td></td>
<td></td>
<td>ground</td>
<td></td>
</tr>
<tr>
<td>164</td>
<td>7</td>
<td>--</td>
<td>--</td>
<td></td>
<td>0.60-1.41</td>
<td>Entrances.</td>
</tr>
<tr>
<td>137</td>
<td>4</td>
<td>0.08</td>
<td>--</td>
<td></td>
<td>0.44-0.85</td>
<td>Subterranean compartments.</td>
</tr>
<tr>
<td>136</td>
<td>40</td>
<td>0.04-0.17</td>
<td>0.02-0.10</td>
<td></td>
<td>0.35-1.55</td>
<td>Sealed doors, projecting stones, entrances, niches, benches.</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>--</td>
<td>0.02-0.05</td>
<td></td>
<td>1.27</td>
<td>Subterranean compartments.</td>
</tr>
<tr>
<td>57</td>
<td>3</td>
<td>0.05</td>
<td>0.04</td>
<td></td>
<td>1.15</td>
<td>Bench, subterranean compartments.</td>
</tr>
<tr>
<td>71</td>
<td>2</td>
<td>--</td>
<td>--</td>
<td></td>
<td>--</td>
<td>Sealed door.</td>
</tr>
<tr>
<td>96</td>
<td>8</td>
<td>--</td>
<td>0.01</td>
<td></td>
<td>0.60-1.80</td>
<td>Compartments, benches, doors.</td>
</tr>
<tr>
<td>84</td>
<td>31</td>
<td>0.03+</td>
<td>0.02-0.10</td>
<td></td>
<td>0.10-1.86</td>
<td>Doors, benches, niches, compartments.</td>
</tr>
<tr>
<td>108</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td></td>
<td>0.90</td>
<td>Above ground compartment.</td>
</tr>
<tr>
<td>110</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td></td>
<td>--</td>
<td>Entrance.</td>
</tr>
</tbody>
</table>

N.B. Projecting branches were probably present at sites 169, 135, 66, 35, 87, 113, 109.
Stairs

There are probably more flights of stairs than appear on Table 21, because wall debris often obscures their presence at a site. Where they are very worn they may be confused with ramps, although any questionable examples have been omitted from the table.

There may be as many as seven steps in a flight. Each of these steps is built of one or more blocks of stone, with the flat side facing outwards and fill behind. There is mortar between the blocks but the stairs were not plastered. The height of the individual step varies between 0.09 and 0.30 m and its depth between 0.18 and 0.37 m. Most flights are 1.00 m wide or less. Flights that are 2.00 m wide or more are found in patio groups at sites 104 and 57.

Stairs are associated with entrances where one room is on a different level from another, or else with compartments or isolated rooms. In the latter cases they are placed alongside one of the walls of the compartment or room. Presumably one climbed over the wall top. At site 136 five of the ten flights lead to the wall tops of rooms that are still accessible by means of an entrance. It would seem, therefore, that these stairs were built in preparation for the eventual blocking up of the entrance and the creation of smaller rooms or compartments. People must have walked along the top of the wall, even though this was only from 0.40 to 0.50 m wide. At site 71, two flights in very good condition led to the roofs of compartments (S.P. 11). It is not likely that the roofs in question were used as the living floor of a second storey, although there is no evidence for what activities
did take place there. Often the newly created compartments have entry holes from above (S.P. 12A), so it was necessary to reach the roofs in order to renew food and drink offerings for the dead who were placed in the compartments.

Where stairs lead to a higher level that is not over a compartment, as at site 57 in the Conjunto de los Nichos, this higher level is always an upper courtyard built over fill and overlooks the lower one.

Stairs allow access between platforms on hill slopes. An example can be seen at site 104 on S.P. 14. There are also long flights, about 1.50 m wide, on paths up hills. Here several blocks of stone are aligned to form a single step.

Low, wide stairs are found at shrines and tombs. There are two examples at sites 137 and 164 (S.P. 38 and S.M. 1). At site 137 a stairway leads to some tomb groups. It is about 10.00 m wide and consists of nine low steps. At site 164, there is a similar stairway on top of the ridge, on one of the small hummocks whose summit has been artificially levelled to create a small platform which has a rectangular, low-walled structure on top. This structure is reached by a series of low steps on two sides of the hummock. On the third side there is an almost sheer drop to the valley floor. The hummock is one of the highest points along the ridge and there are pit graves on a platform below the stairs. In both cases stairs had a ceremonial function.
TABLE 21

STAIRS

<table>
<thead>
<tr>
<th>Site No.</th>
<th>No. in Flight</th>
<th>No.</th>
<th>Width</th>
<th>Total Height</th>
<th>Total Length</th>
<th>Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>6</td>
<td>3-6</td>
<td>0.45-1.08</td>
<td>0.30-1.60</td>
<td>1.00</td>
<td>Leading to wall tops, entrances, platforms.</td>
</tr>
<tr>
<td>136</td>
<td>10</td>
<td>2-6</td>
<td>0.40-0.90</td>
<td>0.37-1.64</td>
<td>0.31-2.30</td>
<td>Leading to compartments, wall tops, isolated rooms.</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Leading to wall top.</td>
</tr>
<tr>
<td>35</td>
<td>1</td>
<td>about 7</td>
<td>1.00</td>
<td>2.00</td>
<td>2.10</td>
<td>Leading to upper court.</td>
</tr>
<tr>
<td>57</td>
<td>6</td>
<td>2-6</td>
<td>0.62-2.15</td>
<td>0.51-1.51</td>
<td>0.35-1.00</td>
<td>Leading to entrances, passages, upper courts.</td>
</tr>
<tr>
<td>71</td>
<td>2</td>
<td>5-7</td>
<td>0.45-1.02</td>
<td>1.27-1.67</td>
<td>2.53-2.81</td>
<td>Leading to above ground compartments.</td>
</tr>
<tr>
<td>84</td>
<td>3</td>
<td>3-4</td>
<td>0.47-0.65</td>
<td>0.48-0.86</td>
<td>1.04</td>
<td>Leading to compartments, doors, another level.</td>
</tr>
<tr>
<td>104</td>
<td>2</td>
<td>5</td>
<td>0.63-2.00</td>
<td>0.70-2.00</td>
<td>2.00+</td>
<td>Leading to another platform level.</td>
</tr>
<tr>
<td>137</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Leading to another platform level.</td>
</tr>
<tr>
<td>169</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Leading to another platform level.</td>
</tr>
<tr>
<td>353</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Leading to an upper courtyard.</td>
</tr>
</tbody>
</table>

N.B. Steps were probably present at sites 135, 87, 96, 110 113, and 109.
1) **Projecting Stone Steps**

There were more of these than appear in Table 22. Because of the destruction of so many compartment walls, the steps have fallen and are indistinguishable from the rest of the rubble. There were probably between three and four in most flights although in certain cases only one or two remain. They are wider and flatter than the projecting stones used as pegs, because they were used as treads. The stones are usually set diagonally along a wall, the first being 0.20 to 0.30 m above ground and the next 0.20 to 0.40 m above it.

<table>
<thead>
<tr>
<th>Site</th>
<th>No. in set</th>
<th>No. in set</th>
<th>Height from ground</th>
<th>Width</th>
<th>Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>3</td>
<td>1-4</td>
<td>--</td>
<td>--</td>
<td>Sealed entrance.</td>
</tr>
<tr>
<td>136</td>
<td>8</td>
<td>1-5</td>
<td>0.20-1.24</td>
<td>0.06-0.27</td>
<td>Compartments and isolated rooms.</td>
</tr>
<tr>
<td>35</td>
<td>3</td>
<td>2-4</td>
<td>0.30-0.60</td>
<td>--</td>
<td>Subterranean compartments.</td>
</tr>
<tr>
<td>57</td>
<td>1</td>
<td>4</td>
<td>0.34-1.21</td>
<td>0.20</td>
<td>Isolated room.</td>
</tr>
<tr>
<td>84</td>
<td>7</td>
<td>2-3</td>
<td>0.20-1.30</td>
<td>0.12</td>
<td>Compartments and isolated rooms.</td>
</tr>
</tbody>
</table>

N.B. Projecting stone steps were probably present at sites 169, 137, 135, 28, 71, 87, 96, 104, 110, 113, 109 and 353.
1) **Projecting Stone Steps (cont.)**

The best examples come from site 136 where they can be seen on the inside and outside of sealed rooms and purposely-built, isolated rooms. In the latter case the steps must have been positioned when the walls were built, and one presumably climbed on to the wall and then down into the room, which indicates that these rooms were not roofed.

Steps also lead down to subterranean compartments and passageways, as at site 35. At sites 164 and 84 steps are built into a sealed doorway and thus provide a new means of access to a reconstructed room. In the case of site 84, as can be seen from S.P. 12A, they give access to the roof of an above-ground compartment created for burials, and then to the new floor level of the adjacent room.

m) **Wide and Narrow Benches**

A distinction was made between wide and narrow benches because one often finds a narrow bench above a wider one. The width of these narrow benches is 0.30 m or less (0.64 m in one exceptional instance at site 57).
### TABLE 23

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Range in Length</th>
<th>Range in Width</th>
<th>Range in Height</th>
<th>Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>5 2.50-7.20</td>
<td>0.40-0.60</td>
<td>0.24-0.50</td>
<td>In isolated rooms with communicating holes above.</td>
</tr>
<tr>
<td>169</td>
<td>x --</td>
<td>--</td>
<td>--</td>
<td>At back of platforms.</td>
</tr>
<tr>
<td>137</td>
<td>3 4.30-7.50</td>
<td>0.34-3.25</td>
<td>0.42-0.50</td>
<td>In courtyards, rooms.</td>
</tr>
<tr>
<td>136</td>
<td>10 2.20-6.50</td>
<td>0.45-4.00</td>
<td>0.16-0.85</td>
<td>In compartments, with niches, projecting stone and branches above or near.</td>
</tr>
<tr>
<td>135</td>
<td>1 --</td>
<td>--</td>
<td>0.30</td>
<td>At back of platform.</td>
</tr>
<tr>
<td>66</td>
<td>3 1.30-1.57</td>
<td>0.17-0.40</td>
<td>--</td>
<td>In courtyards and rooms.</td>
</tr>
<tr>
<td>28</td>
<td>11 3.75-23.00</td>
<td>0.45-2.40</td>
<td>0.26-1.00</td>
<td>Pits in them.</td>
</tr>
<tr>
<td>35</td>
<td>2 3.50</td>
<td>4.00</td>
<td>0.50</td>
<td>Either side of corridor entrance.</td>
</tr>
<tr>
<td>57</td>
<td>33 1.40-10.00</td>
<td>0.65-2.75</td>
<td>0.09-0.80</td>
<td>In courtyards and rooms, niches above them.</td>
</tr>
<tr>
<td>71</td>
<td>2 --</td>
<td>--</td>
<td>0.30-0.38</td>
<td>Compartments.</td>
</tr>
<tr>
<td>87</td>
<td>1 --</td>
<td>1.30</td>
<td>0.20</td>
<td>--</td>
</tr>
<tr>
<td>96</td>
<td>1 --</td>
<td>--</td>
<td>1.20</td>
<td>--</td>
</tr>
<tr>
<td>84</td>
<td>10 2.00-10.00</td>
<td>0.70-6.00</td>
<td>0.12-0.50</td>
<td>Large niche above; roofing stone., compartments, steps nearby.</td>
</tr>
<tr>
<td>86</td>
<td>1 2.40</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>104</td>
<td>5 6.00</td>
<td>0.47-1.10</td>
<td>0.33-1.70</td>
<td>Against platform walls; in rooms.</td>
</tr>
<tr>
<td>110</td>
<td>10 10.00</td>
<td>0.42-2.10</td>
<td>0.30-0.90</td>
<td>Pits.</td>
</tr>
<tr>
<td>113</td>
<td>4 1.40</td>
<td>0.90</td>
<td>0.20-1.10</td>
<td>--</td>
</tr>
<tr>
<td>109</td>
<td>1 2.83</td>
<td>0.68</td>
<td>0.24</td>
<td>Compartment; entrance to platform.</td>
</tr>
<tr>
<td>353</td>
<td>2 23.00</td>
<td>2.90-4.85</td>
<td>0.50-0.80</td>
<td>In courtyards.</td>
</tr>
</tbody>
</table>
m) i) Wide Benches

These are found at most sites in the study area. As can be seen from Table 23, their height and width varies considerably. Smaller ones, under 1.00 m wide and about 0.40 m high, can border from two to four walls of a courtyard or room. These benches could have been used for sitting and wider ones for reclining. Other benches, 1.00 m wide and about 0.20 m high, flank entrances or run across the room. It is possible that bedding could have been placed on these. One might also surmise that curacas sat or carried out activities on the higher level.

Benches sometimes have niches or projecting stones above them, which suggest that something sacred or valuable was hung or placed behind them. Benches over 0.50 m high at sites 28, 57 and 113 have pits built in them. These pits are 1.00 m or so in diameter and sometimes plastered.

The bench itself is constructed by filling in the space behind a row of stone blocks with earth. If the bench is more than 0.20 m high, then several layers of stone form a retaining wall in front of the fill. In the better constructed sectors of sites the bench is plastered over, but on platforms, e.g. at site 104, the bench is usually unplastered. In such cases benches are found in front of the back retaining wall and must have acted as a support for it, as well as being used for sitting or reclining. Such benches can be as much as 1.50 m wide (S.P. 14). Often the entrance to a platform comes from behind onto the bench (S.P. 18A and B).
m) ii) Narrow Benches

These are too narrow to be used for sitting. At present it is difficult to ascertain the function of those benches under 0.20 m high. Those that are over 0.40 m high are often found in above-ground compartments, or close to them. It would seem that their function was to provide a support for projecting stones or beams for the compartment roof (cf. Bonavía, op. cit., lámina 14, croquis 4). It is likely, therefore, that some of the narrow benches in small rooms, or near compartments, were constructed with a view to acting as roofing supports, if compartments were to be built in a room, or added to previous ones.

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Range in Length</th>
<th>Range in Width</th>
<th>Range in Height</th>
<th>Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>3</td>
<td>1.30-0.14</td>
<td>0.23-0.26</td>
<td>0.40-0.50</td>
</tr>
<tr>
<td>136</td>
<td>8</td>
<td>2.28-7.00</td>
<td>0.14-0.33</td>
<td>0.16-0.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ing stone above.</td>
</tr>
<tr>
<td>57</td>
<td>17</td>
<td>1.55-2.20</td>
<td>0.17-0.64</td>
<td>0.12-0.50</td>
</tr>
<tr>
<td>84</td>
<td>8</td>
<td>2.00-10.00</td>
<td>0.30-0.35</td>
<td>0.03-0.18</td>
</tr>
<tr>
<td>86</td>
<td>1</td>
<td>--</td>
<td>0.26</td>
<td>0.40</td>
</tr>
<tr>
<td>110</td>
<td>3</td>
<td>--</td>
<td>0.30-0.37</td>
<td>0.12-0.80</td>
</tr>
</tbody>
</table>

N.B. Narrow benches were observed, but not measured, at sites 169, 137, 135, 28, 35, 71, 87, 96, 104, 108, 113, 109, and 353.
n) Ramps

Unlike the Manchay zone studied by Bonavía (1965, lámina 3, plano 2), there are few ramps in the study area and these are all in the Huaycán sector. This uneven distribution is not merely due to poor preservation. At other sites upvalley, where there is access from one level to another, the feature in question usually proves to be steps rather than a ramp. In the Huaycán sector ramps are found only in the most imposing buildings at sites 35 and 57. These buildings are comparable in size and layout to those of Pachacamac, where ramps are common in LIP and LH structures, such as Tauri Chumbí and JB (Bueno 1973b, pp.66-71).

<table>
<thead>
<tr>
<th>Site</th>
<th>No.</th>
<th>Range in length against wall</th>
<th>Range in height</th>
<th>Range in width</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>5</td>
<td>3.00-5.00</td>
<td>0.62-1.75</td>
<td>1.46-2.00</td>
<td>To higher courtyard.</td>
</tr>
<tr>
<td>57</td>
<td>3</td>
<td>1.62-4.00</td>
<td>0.45-0.73</td>
<td>0.52-1.28</td>
<td>To higher courtyard.</td>
</tr>
</tbody>
</table>

Ramps occur in large courtyards that are bordered by two or more open courtyards on a higher level. The ramps allow access between these courtyards. At site 35 they are quite large: 3.00 - 5.00 m long and as much as 2.00 m wide. They are built against one wall of the courtyard which acts
as a support for one side of the ramp. At site 57 they are in a different position, for one in the great court of the Conjunto de las Ventanas is placed half way along the retaining wall of the upper courtyard, so that it does not have a supporting wall. The other is also centrally placed against a retaining wall in the form of an inverted truncated "V". It is likely that there were ramps at site 28, which is opposite site 57, but it is reasonably certain that there are none above site 57, possibly because the buildings are less imposing and the courtyards are smaller.

o) Floors

No table has been given because there is so little evidence for floors at present. As excavations at site 137 show (Appendix II, Avillay, test pits, 4, 5, 6, 8 and 9), floors were of packed mud, and from 0.02 to 0.04 m thick. Excavation located them in the patio group at the above site, but not in the house platforms (ibidem, test pits 1-3). In the Conjunto de los Nichos at site 57 there are traces of floors in the labyrinth of small rooms and in the main courtyard. These floors are similar to those of site 137. At the latter site there is evidence that some floors were painted red, for a portion of painted floor was discovered while clearing a room in the southwest of the main patio group. In addition, at most sites certain subterranean and above-ground compartments have plastered floors (ibidem, compartments 3-6).
There are two kinds of decoration: modelled and painted. The former is found chiefly at sites in the downvalley sectors, whereas the latter is ubiquitous. Modelled decoration in the form of wall friezes has already been mentioned in connection with construction techniques. The friezes are modelled on tapia blocks, at a height of 1.33 to 2.15 m above ground level and from 0.10 to 1.16 m from the wall top. The designs are sculpted out of the tapia rather than moulded, for not one is the exact replica of another. There is evidence that one frieze was painted red at site 28.

The size of the elements varies from 0.21 by 0.18 m for an "L" shape to 0.26 by 0.87 m for a tumi. The depth varies between 0.04 and 0.11 m. The most common design is an inverted "L" with the series facing either direction, (fig. CVII a, b). This is found at sites 28, 35, 57 and 84. At sites 57 and 84 there are designs where the "L" has an additional step (fig. CVII c, d, e). At site 28 there is also a niche-like frieze and a possible lattice.

The greatest variety comes from site 57, some of whose friezes have been illustrated by Bueno (1978a, pp.69-70). In two courtyards of the Conjunto de los Nichos and the Conjunto Ornamentado there is a gong-like frieze, together with a combination of birds, animals and a double tumi on another wall (fig. CVII f - i). The gong, the animal and the double tumi are always in relief in an excised rectangle, whereas the other elements are gouged out without a surrounding frame. If all the elements are intact, there may be
as many as thirty-four in a single wall, otherwise the number varies from four to eighteen.

A point of interest is the fact that subsequent rebuilding would obliterate a frieze, so that a frieze in itself is no sign that a room has been completed and is immutable. At sites 84 and 57 compartment walls have been built perpendicular to a frieze wall (Bueno, op. cit., p.68).

At site 34 one of the friezes is now completely hidden by subterranean compartments.

Painted friezes were probably commoner than modelled ones, but they have not withstood the passage of time so well. Rooms at most sites show no more than traces of pigment, but at two sites there is evidence for a variety of designs. At site 57 there are two examples, both consisting of a circle design and both on courtyard walls, (fig. CVIIIb). In the Conjunto Ornamentado there are painted circles, 0.22 m in diameter with a dot in the centre. The circle and dot are in red on a white background. Only four circles are now visible at a height of 1.35 m from the ground. In a very large courtyard of the patio group to the southeast of the site there are painted circles 1.00 m from the ground. These are very faint now, but were about 0.57 m in diameter with a dot, 0.10 m in diameter, in the centre. Their original colour has faded, but the background seems to have been red, so that they were possibly white, yellow or black, these being the most usual mural colours.
### TABLE 26

**WALL DECORATION**

<table>
<thead>
<tr>
<th>Site</th>
<th>Plastic</th>
<th>Nature</th>
<th>Painted</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td></td>
<td></td>
<td>x</td>
<td>Walls painted red, yellow or white.</td>
</tr>
<tr>
<td>137</td>
<td></td>
<td></td>
<td>x</td>
<td>Mural in red, yellow, black on white. Walls painted red or yellow and white. Floor painted red. Tomb painted red, black and white</td>
</tr>
<tr>
<td>66</td>
<td></td>
<td></td>
<td>x</td>
<td>Wall with red paint.</td>
</tr>
<tr>
<td>28</td>
<td>x</td>
<td>Various friezes on walls. Some painted.</td>
<td>x</td>
<td>Walls with red or yellow paint.</td>
</tr>
<tr>
<td>35</td>
<td>x</td>
<td>Frieze on wall.</td>
<td>x</td>
<td>Walls painted red or yellow.</td>
</tr>
<tr>
<td>57</td>
<td>x</td>
<td>At least 12 examples of friezes. Greatest variety of shapes here.</td>
<td>x</td>
<td>Walls with painted circles in red and other colours.</td>
</tr>
<tr>
<td>71</td>
<td></td>
<td></td>
<td></td>
<td>Possible traces of red paint on one wall.</td>
</tr>
<tr>
<td>96</td>
<td></td>
<td></td>
<td></td>
<td>Traces of red paint on a wall.</td>
</tr>
<tr>
<td>84</td>
<td>x</td>
<td>Four examples of friezes plus engraved bird.</td>
<td>x</td>
<td>Traces of red or yellow paint on walls.</td>
</tr>
<tr>
<td>110</td>
<td>?</td>
<td></td>
<td></td>
<td>Traces of a possible frieze.</td>
</tr>
</tbody>
</table>
The greatest variety occurs at site 137, in the complex attached to the gabled building. To the west of this in the same courtyard is another rectangular structure on whose exterior east wall is a tartan design of white stripes outlining yellow rectangles (fig. CVIII c). The white stripes are 0.03 m wide, and the yellow rectangle is 0.40 m wide and 0.26 m high. Only six rectangles are now visible.

On the exterior of the southwest wall of the gabled building there appears to have been a design of red stripes on white, the red stripes being 0.13 m wide and the white 0.03 m.

The northeast wall of the same building was also painted red on the interior. On the southeast wall there is an elaborate mural. This is a curvilinear design in red, yellow, black, and possibly green, on a white background (figs. CVII k; CVIII a). The design is worn but certain portions still stand out. As previously discussed, it is comparable to the designs painted on the steps of the Temple of Pachacamac, which are also LH (Bonavia 1974, pp. 117-126).

Finally, and in a different category, is the small engraving on a wall at site 04 (fig. CVII j). In an upper room on the slope, about 0.41 m above present ground level, is a small bird incised into the wall plaster. It covers an area 0.28 by 0.18 m. This mode of wall decoration is unique, but the design appears pre-Columbian and at present there is no reason to doubt its authenticity.
How much of any structure was roofed is one of the debatable points of coastal architecture. In the study area there is evidence for beams, canes and stones placed horizontally in the walls of rooms to support roofs of matting, canes or more stones, but these roofs are usually for above-ground or subterranean compartments. In rooms without compartments there are occasional beam holes, but rarely more than two in a wall. These are placed about 1.50 m above ground level, which would create a very low room, where few activities could be carried out in comfort. A further difficulty lies in the fact that it is often impossible to find corresponding holes in the opposite wall, although sometimes this is lower and the beams could have rested on the top. It is also possible that such beams rested on posts placed vertically in the ground, but these posts are never located in the same room as the beam holes.

The documentary evidence casts some light on roofing materials. For example, Cobo referring to the second type of coastal house says:

"... el otro género de casa tienen las paredes de tapia y algunas de adobes .... La planta de estas casas de tierra era en cuadro, ... más altas que las de bahareque y cubiertas de esteras tejidas de carrizo con un poco de barro encima..." (1964, book 14, p.241)

To my knowledge there are no pre-Columbian esteras in existence now, but a framework made of caña de Guayaquil and split carrizo, bound with ropes of totora and cotton, has been illustrated by Bueno from Pachacamac (1975, p.83, photo 86). In addition, there is abundant evidence for types of roof from north coast ceramics (Willey, 1953, plates 58-60). None of
these, however, quite fits the archaeological evidence from the Lurin with the exception of the raniadas (ibidem, plate 58, second on the left).

There are three kinds of space to be roofed: rooms, passages and compartments. With regard to rooms, there is little evidence for their being roofed. For example, none of the well-preserved, small rooms in the labyrinth off the Conjunto de los Nichos at site 57 appears to have a roof, although they are small and it was presumably within the technological capabilities of their builders to roof them. There is sporadic evidence for the roofing of certain small rooms, (2.00 by 2.00 m or 2.00 by 3.00 m), at sites 164 and 136. At these sites one finds a row of from four to seven beam holes, set from 0.09 to 0.45 m apart in a wall. These holes are from 1.63 to 1.83 m above ground level, and from 0.43 to 0.56 m below the top of the wall. There are traces of wood still inside the holes. This wood is either molle or huarango, as used in door lintels. The beams were from 0.04 to 0.11 m in diameter and extended for a little over 2.00 m to rest on a lower wall. They were probably covered by esterae, or the kind of framework illustrated by Bueno, with mud on top to weight down the roof.

Another kind of frame can be seen at site 84, where there are two beam holes set 0.83 m apart in one wall, and two opposite them. All four are only 1.50 m above ground level, so that even a small adult would have difficulty in standing up. Moreover, any roofing of this kind, with a beam frame and a cane and mud covering, could not support a floor solid enough for people to walk on.
### TABLE 27

**ROOFING MATERIAL**

<table>
<thead>
<tr>
<th>Site</th>
<th>No. Sets</th>
<th>Height from ground</th>
<th>Height from wall top</th>
<th>No. beams/ stones in set</th>
<th>Material</th>
<th>Distance Apart</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>6</td>
<td>0.82-1.73</td>
<td>0.50-0.57</td>
<td>3-6</td>
<td>2 sets beams 0.12-0.19</td>
<td>4 sets stone slabs</td>
</tr>
<tr>
<td>169</td>
<td>1</td>
<td>1.50</td>
<td>1.00</td>
<td></td>
<td>stones</td>
<td>a few cms.</td>
</tr>
<tr>
<td>137</td>
<td>2</td>
<td>--</td>
<td>0.71</td>
<td>5-6</td>
<td>1 set beams</td>
<td>0.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 set stones</td>
<td></td>
</tr>
<tr>
<td>136</td>
<td>4</td>
<td>1.23-1.73</td>
<td>0.43-0.90</td>
<td>2-7</td>
<td>all beams or cane.</td>
<td>0.09-0.32</td>
</tr>
<tr>
<td>28</td>
<td>6</td>
<td>0.90-2.00</td>
<td>0.40-0.90</td>
<td>1-5</td>
<td>all beams or cane</td>
<td>0.14-1.00</td>
</tr>
<tr>
<td>35</td>
<td>1</td>
<td>--</td>
<td>0.40</td>
<td>5</td>
<td>stone slabs</td>
<td>a few cms.</td>
</tr>
<tr>
<td>57</td>
<td>10</td>
<td>1.14-2.05</td>
<td>--</td>
<td>2-11</td>
<td>beams, cane</td>
<td>stone slabs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.43-3.00</td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>8</td>
<td>0.90-2.30</td>
<td>0.10-0.20</td>
<td>1-5</td>
<td>beams, cane</td>
<td>0.08-1.10</td>
</tr>
<tr>
<td>104</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>beam with stone slabs</td>
<td>--</td>
</tr>
<tr>
<td>110</td>
<td>3</td>
<td>1.32-1.43</td>
<td>--</td>
<td>1</td>
<td>beams</td>
<td>--</td>
</tr>
</tbody>
</table>

Other sites where stone slabs and probably beams are used to roof compartments are 135, 71, 87, 96, 113, and 109.
Caña de Guayaquil was used for roofing a larger area.

At site 28, in a courtyard 100 m², there is a row of round beam holes in one wall, 1.80 m above the ground.

There is no trace of wood in the holes, but only caña de Guayaquil would be long enough to reach the opposite wall. The frame would have been covered with esteras or interwoven canes and mud, as before.

At Puruchuco in the Rimac valley Jiménez has roofed several rooms, both small and large, some being left in complete darkness except for light from the entrance. In those rooms with stepped or crenellated walls he has rested the caña de Guayaquil on the merlons. He then covered the frame with esteras and mud, so that light comes from the windows formed by the indentations. At present, however, there is no evidence for such a roofing system in the Lurín.

Where the wall opposite the one with beam holes is the original height, I have not always been able to find marks of beams resting on top, for their combined weight, together with that of the esteras and the mud, should have caused a series of small indentations. On the other hand, it is possible that esteras alone were used for small rooms about 4.00 m². These esteras would have been held down by stones on the wall tops. Such a roof still exists over the small sacristy of the Colonial church at site 136.

Passages were usually roofed with stones, and occasionally with wooden beams or canes. The roofing was necessarily stronger, because passages often led to subterranean compartments and their roofs formed floors on which people could walk. These passages were 1.00 m or less wide and from
1.30 to 1.70 m high. At these heights stones project out 0.30 m from both walls. A row of large slabs rests on these projecting stones, (cf. Bonavía 1965, lámina 4, croquis 4; lámina 15, croquis 2). Stones and mortar were placed around and above the slabs, so as to give a layer at least 0.50 m thick. In the south patio group of site 57 there is a passage between a high wall and an upper level with pit graves. This passage was roofed with a frame of caña de Guayaquil, 2.05 m above ground level. These canes were placed from 0.43 to 2.00 m apart. Possibly esteras or other interwoven canes were placed over them.

Enough material has been left in place to show how above-ground and subterranean compartments were roofed. The height of the roof from the ground varied and, in the case of subterranean compartments, was not always measurable. As with passages, the roof was very thick if it was to double as a floor. Bonavía's sketches, quoted previously, show how this was done. Projecting stones came out of one wall. These were usually close together and rested on a narrow bench. Further slabs were placed on these until a vault was formed in beehive fashion. Spaces were filled in with smaller stones and mortar and the whole covered with a layer of mud mortar, to present a flat surface. At site 110, on an uphill wall over 3.00 m high, there are projecting stones placed 1.55 m above ground level. These roofed a set of above-ground compartments that had already been built. Another row of projecting stones is set in the wall, 1.80 m above the previous set, presumably in readiness for a future set of compartments.
Sometimes a beam is used at right angles to the stones in order to give additional support to the roof, because beams can span the total length of a compartment, unlike the stones. Such beams are in their natural state and have not been straightened out by having their sides shaved. Where only a light roof was required, a row of caña brava or even carrizo was incorporated into the wall and rested on the opposite wall of the compartment (S.P. 128). A further framework of canes and mud was placed over this.

Finally there are the posts placed vertically in courtyards, which probably supported ramadas. These posts are similar to the tree trunks used for roofing and lintels and have had their sides shaved to give a squarish cross-section. They measure from 0.15 by 0.15 m to 0.24 by 0.30 m. They are now all broken and are only 0.08 m above ground level. They are usually set in upper open courtyards above a central lower one. At site 35 six posts are set in two rows at a distance of 2.00 m apart. The beams are placed from 2.60 to 2.80 m behind one another. Their position suggests they supported horizontal beams or caña de Guayaquil and that branches, interwoven canes or even cloth were placed over the frame to form a ramada. This would have housed an important person or sacred object, as appears to be the case in the ceramic replicas cited previously. Similar posts are found on upper courtyards in Tauri Chumbi at Pachacamac. At site 57 there is a single beam in each of the two upper courtyards bordering the main one of the Conjunto de los Nichos. Such beams may also have helped to support some kind of roof.
TABLE 28

VERTICALLY PLACED BEAMS

<table>
<thead>
<tr>
<th>Site No.</th>
<th>No. in set</th>
<th>Size</th>
<th>Distance Apart</th>
<th>Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>5</td>
<td>1-6</td>
<td>0.15 x 0.15</td>
<td>2.00-2.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>to 0.24 x 0.30</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2 of 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 of 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 of 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>4</td>
<td>1</td>
<td>0.08 x 0.16</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>to 0.13 x 0.20</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

r) Pits

Table 29

The difference between pits and subterranean compartments is that the former are dug into the soil or the fill of a high bench, whereas the latter are formed by a series of walls built on an original floor level. These walls are roofed thereby creating an upper level (see S.P. 12A, B and C). Pits are found at most sites. They are lined with stone and occasionally plastered. They are found both in rooms and in open courtyards of room clusters and patio groups, and sometimes beneath subterranean compartments in these (see Appendix II, Avillaj, compartment 6). Their diameter
Their shape usually varies from round to oval, although some are rectangular. At present there are no significant differences in size, shape and methods of construction between those found in room clusters and those found on platforms and in *pirca* circles, except that the latter are never plastered. Some in both locations are associated with bone fragments, particularly at sites 164, 136 and 84.

It is often assumed that their function was a storage one. This is a possibility which is not easy to prove at the present, for they are not associated with sherds of storage vessels and most are devoid of cultural material. If pits had a domestic storage function, one would expect to find more of them on dwelling platforms and in *pirca* circles than at present. The fact that bones are associated with a few pits shows that some were destined to be graves, although they may have served another purpose before this.
TABLE 29

PITS

<table>
<thead>
<tr>
<th>Site</th>
<th>No.</th>
<th>Range in diameter</th>
<th>Range in depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>12</td>
<td>0.90-1.00</td>
<td>0.50-0.90</td>
</tr>
<tr>
<td>137</td>
<td>4</td>
<td>0.80-1.00</td>
<td>0.30-0.80</td>
</tr>
<tr>
<td>136</td>
<td>4</td>
<td>0.45-1.10</td>
<td>0.30-0.80</td>
</tr>
<tr>
<td>135</td>
<td>2</td>
<td>0.80</td>
<td>0.20-0.60</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>1.20</td>
<td>0.70</td>
</tr>
<tr>
<td>35</td>
<td>1</td>
<td>--</td>
<td>1.00</td>
</tr>
<tr>
<td>84</td>
<td>3</td>
<td>0.40-0.50</td>
<td>1.20-1.40</td>
</tr>
<tr>
<td>110</td>
<td>1</td>
<td>2.00</td>
<td>0.60</td>
</tr>
<tr>
<td>113</td>
<td>9</td>
<td>1.00-1.30</td>
<td>0.50-0.80</td>
</tr>
<tr>
<td>109</td>
<td>2</td>
<td>0.43-0.46</td>
<td>0.35-0.60</td>
</tr>
<tr>
<td>66</td>
<td>2</td>
<td>1.00</td>
<td>0.50</td>
</tr>
</tbody>
</table>

s) Above-ground Compartments

Above-ground compartments are always found in room clusters or patio groups. Where they occur on terraces, as at sites 109 and 169, they have been classified as tombs, because the majority are associated with human bone. The distinction between a compartment and a small room is that the former will have at least two walls lower than the walls of the room in which it is built, whereas the four walls of a small room will be generally higher (over 1.60 m) than those of a compartment and will be flush.
The walls of a compartment vary from 0.30 to 1.80 m in height but are usually no more than 1.50 m. An exception is an unusual compartment at site 84, which has been formed by the juncture of four walls, each over 3.00 m high. The compartment appears inaccessible and was only discovered by climbing on top of the walls of other rooms. Its area was 4 m² and human bone could be seen at the bottom.

The difference between above-ground and subterranean compartments depends on the lowest level at which a room with a compartment may be entered. To take an example from site 84 (S.P. 12A), one enters the first room at ground level and finds a compartment at the side. This compartment has to be scaled by projecting stone steps in order to reach the second room via its newly created entrance. Therefore the compartment is an above-ground one. In the second room the compartments are all below the level of entry and are therefore subterranean.

It is also clear that above-ground compartments may become subterranean ones in the course of reconstruction. Therefore those sites or structures with only above-ground compartments, such as site 136, are either later in time than those with a number of subterranean ones, or else had a very short occupation.

Some compartments are built against sealed doors or near them (S.P. 12A and B). Some have projecting stones, bones, branches and niches inside or nearby. Others are associated with projecting stone steps or stairs, by means of which one could reach their roofs. Some of the roofs in good condition have entry holes in them. These vary in size from
0.29 by 0.28 m to 0.60 by 0.43 m. It is possible that the larger holes could have given access to whatever was kept in a compartment, but it is unlikely that even a child could have entered the compartment by one of the smaller holes. Otherwise a few compartments have communicating holes in them, usually at ground level. This restricted access implies that something valuable, that was not required very often, was stored in the compartments.
<table>
<thead>
<tr>
<th>Site</th>
<th>No.</th>
<th>Area $m^2$</th>
<th>Present Height</th>
<th>Bone</th>
<th>Other Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>5</td>
<td>0.48-4.00</td>
<td>0.30-0.60</td>
<td>yes</td>
<td>Projecting stones</td>
</tr>
<tr>
<td>137</td>
<td>1</td>
<td>2.52</td>
<td>0.38</td>
<td>yes</td>
<td>Close to sealed entrance.</td>
</tr>
<tr>
<td>136</td>
<td>22</td>
<td>0.56-5.63</td>
<td>0.30-1.40</td>
<td>no</td>
<td>Niches nearby, communicating holes, sealed doors, projecting stones, projecting branches.</td>
</tr>
<tr>
<td>66</td>
<td>2</td>
<td>2.25</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>28</td>
<td>11</td>
<td>1.24-5.33</td>
<td>0.73-1.23</td>
<td>yes</td>
<td>Niches, projecting stones, cane roofing, beam roofing.</td>
</tr>
<tr>
<td>35</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>yes</td>
<td>--</td>
</tr>
<tr>
<td>57</td>
<td>9</td>
<td>0.19-3.10</td>
<td>0.40-1.70</td>
<td>yes</td>
<td>Niches, projecting stones nearby.</td>
</tr>
<tr>
<td>71</td>
<td>x</td>
<td>--</td>
<td>--</td>
<td>no</td>
<td>Niches nearby.</td>
</tr>
<tr>
<td>87</td>
<td>3</td>
<td>2.03-3.06</td>
<td>0.83-0.90</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>96</td>
<td>3</td>
<td>1.00-2.53</td>
<td>1.10-1.40</td>
<td>yes</td>
<td>Projecting branches, projecting stones.</td>
</tr>
<tr>
<td>84</td>
<td>9</td>
<td>0.42-2.43</td>
<td>0.70-3.00</td>
<td>yes</td>
<td>Projecting stones, bones, branches, projecting stone steps.</td>
</tr>
<tr>
<td>86</td>
<td>1</td>
<td>0.69</td>
<td>0.60</td>
<td>no</td>
<td>--</td>
</tr>
<tr>
<td>110</td>
<td>4</td>
<td>1.58-5.04</td>
<td>0.70-1.80</td>
<td>yes</td>
<td>Small entry holes.</td>
</tr>
<tr>
<td>113</td>
<td>17</td>
<td>0.69-3.52</td>
<td>0.80-1.20</td>
<td>yes</td>
<td>Small entry holes in roof.</td>
</tr>
<tr>
<td>353</td>
<td>16</td>
<td>2.19-10.13</td>
<td>0.80-1.50</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

N.B. Above-ground compartments were observed, but not measured, at sites 169, 135, 104, 108 and 109.
t) **Subterranean Compartments**

These are not always easy to measure, because of the destruction of some compartments and the difficulty of entering those in reasonable condition. Table 31 gives their measurements and associated features. The latter are similar to those features found in above-ground compartments. The projecting branches, stones and niches suggest that valuable or sacred objects were placed or hung in these compartments. It should also be noted that sites that do not possess subterranean compartments, such as 136, 86 and 353, were all built during the LH.

The compartments vary between 0.68 and 4.00 m in length, 0.52 and 2.20 m in width and between 0.20 and 2.00 m in depth. Roofs are from 0.30 to 0.60 m thick. The walls of the room are usually between 0.40 and 1.50 m above the compartment roof. When these walls reach the latter height they have usually been extended, as at site 84 (S.P. 12B). Walls that divide the interior of a large compartment may be as narrow as 0.25 m, but they are wider if they have to support stone roofing slabs. These partition walls may appear above the floor level as small ridges, as can be seen in S.P. 12B.

Most subterranean compartments have entry holes in the roof. These holes range in size from 0.28 by 0.32 m to 0.40 by 0.60 m. This range resembles that of the entry holes for above-ground compartments and similar comments apply to the feasibility of entering the subterranean ones. Some compartments communicate with one another (S.P. 12A), either by means of a gap in the partition walls, or else by a specially built
miniature door with a lintel, which is really a communicating hole. This door may be as much as 0.65 m high and 0.50 m wide.

**TABLE 31**

**SUBTERRANEAN COMPARTMENTS**

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Range in Length</th>
<th>Range in Width</th>
<th>Range in Depth</th>
<th>Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>0.68-2.40</td>
<td>0.52-1.40</td>
<td>0.67-1.00</td>
<td>Niches, projecting stones and bones.</td>
</tr>
<tr>
<td>169</td>
<td>1.80-4.60</td>
<td>1.20-1.70</td>
<td>0.75</td>
<td>--</td>
</tr>
<tr>
<td>137</td>
<td>2.25-3.50</td>
<td>1.50-2.00</td>
<td>1.00</td>
<td>--</td>
</tr>
<tr>
<td>28</td>
<td>1.87-4.00</td>
<td>0.67-1.90</td>
<td>0.80-1.80</td>
<td>Niches, projecting stones and branches.</td>
</tr>
<tr>
<td>35</td>
<td>1.00-3.00</td>
<td>1.00</td>
<td>1.20-1.50</td>
<td>--</td>
</tr>
<tr>
<td>57</td>
<td>1.15-2.90</td>
<td>0.51-1.56</td>
<td>0.56-2.00</td>
<td>--</td>
</tr>
<tr>
<td>71</td>
<td>0.95-1.50</td>
<td>--</td>
<td>0.20-1.20</td>
<td>Traces of red paint in one.</td>
</tr>
<tr>
<td>87</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>96</td>
<td>0.67-1.50</td>
<td>0.27</td>
<td>0.40-1.15</td>
<td>--</td>
</tr>
<tr>
<td>84</td>
<td>1.10-2.65</td>
<td>0.90-2.20</td>
<td>1.17-1.30</td>
<td>--</td>
</tr>
<tr>
<td>110</td>
<td>0.80-4.00</td>
<td>0.55-1.50</td>
<td>0.50-1.50</td>
<td>--</td>
</tr>
<tr>
<td>113</td>
<td>1.25</td>
<td>1.00</td>
<td>1.20-1.30</td>
<td>--</td>
</tr>
<tr>
<td>109</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

**N.B.** Subterranean compartments were not noted at sites 136, 86 and 353. They were probably present at site 104, in the row of rooms behind the wide platform in front of the central structure. The access to these rooms is from a higher terrace with at least a 1.00 m drop to the floor level below. A few beams still in position indicate that an upper floor level to correspond with the entrance had been, or was being, constructed at the time the site was abandoned.
TABLE 32

THE ASSOCIATION OF COMPARTMENTS WITH ROOMS AND BONES

<table>
<thead>
<tr>
<th>Site</th>
<th>Sector/Structure</th>
<th>Minimum No. Rooms</th>
<th>No. Rooms with comps.</th>
<th>Total No. comps.</th>
<th>No. of comps. per room</th>
<th>Proportion of comps. with bones</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>II-10</td>
<td>87</td>
<td>77</td>
<td>&gt;100</td>
<td>1-7</td>
<td>½</td>
</tr>
<tr>
<td>28</td>
<td>I-1</td>
<td>29</td>
<td>20</td>
<td>30</td>
<td>1-7</td>
<td>½</td>
</tr>
<tr>
<td>87</td>
<td>I</td>
<td>40</td>
<td>25</td>
<td>47</td>
<td>1-7</td>
<td>few</td>
</tr>
<tr>
<td>71</td>
<td>I-3</td>
<td>56</td>
<td>39</td>
<td>92</td>
<td>1-7</td>
<td>none</td>
</tr>
<tr>
<td>96</td>
<td>I</td>
<td>31</td>
<td>28</td>
<td>82</td>
<td>1-6</td>
<td>½</td>
</tr>
<tr>
<td>110</td>
<td>III</td>
<td>29</td>
<td>19</td>
<td>59</td>
<td>1-7</td>
<td>½</td>
</tr>
<tr>
<td>113</td>
<td>I-1</td>
<td>50</td>
<td>49</td>
<td>43</td>
<td>1-3</td>
<td>less than ½</td>
</tr>
</tbody>
</table>

N.B. i) For the purposes of comparison one of the best-preserved structures at each of the above sites was chosen. The compartments are both above-ground and subterranean.

ii) Bones are also associated with compartments at sites 35, 57, 137, 84, 109 and 169.

The above table shows that from 50% to 90% of the rooms in a room cluster have one or more above-ground and subterranean compartments. The exceptions are usually large entry courts and some side rooms off these. There may be from one to seven compartments in a single room. Furthermore, 50% of the compartments in room clusters are associated with human bone, the exceptions being sites 136 and 71.³⁶ Such an association shows that the compartments were used as tombs. This is not surprising in view of the importance attached to ancestor worship.³⁷ The apertures between compartments show that the dead were expected to
communicate with one another. Moreover the entry holes from the exterior were probably for the purpose of renewing offerings, as has been discussed previously in the section on tombs.

Because the subterranean compartments were usually the end-product of the remodelling process, it is unlikely that they were used for storing food or other articles. On the other hand the more accessible of the above-ground ones could have been used to store food and ritual or sacred objects. Unfortunately there is no particular evidence to confirm this hypothesis, other than the sherds from Brown Ware I storage jars that are sometimes found in rooms with compartments at site 136.

4. Associated Cultural Material

  a) Ceramic

  With the exception of the bare ceremonial terraces, the ritual architecture of any site contains the bulk of surface potsherds. This is not because the original inhabitants broke so many vessels there, but because the structures were easy targets for looting armies and the extirpators of idolatry. Most of the vessels were broken by the looters when the structures were sacked or dismantled, for many of the sherds are quite large and the breaks are relatively fresh, even after 450 years on the surface.
The sherds of every room on the site plan of Avillay (S.P. 3A and 3B) were examined in order to see what kind of vessels they came from. It was hoped that the presence or absence of storage, cooking and ceremonial vessels might pinpoint certain activity areas. The results were disappointing because all such vessels were found in most rooms and courtyards and the proportions appear random. The fact that these kinds of vessels are found mingled together merely suggests that a variety of activities was carried out in each structure.

However, there is some evidence from the excavations in the Conjunto de los Nichos at site 57. Here Bueno located several Orange Ware vessels set into the ground of some large courtyards (Bueno 1978a, p.70). None of these vessels is over 30 cms high and all lack rims. Their presence in the courtyards indicates that these were probably areas where food was stored. This is confirmed by the fact that at Panquilma there are the remains of a large Orange Ware III vessel set into the ground of a large courtyard. This vessel probably contained maize.

b) Other

A variety of objects ranging from figurines to spondylus shells and copper tweezers has been found on the surface of the rooms in the ritual architecture. Most objects can be associated with tombs or the debris from subterranean compartments. Chart IV shows the distribution of these objects and figures XCVIII to CVI illustrate a selection. Some objects come from the test pits in courtyards and rooms at
Panquilma and Avillay. Their lack of significance for delineating possible activity areas has been discussed in Appendix II.

C. Discussion

The purpose of the shrines and tombs requires no further comment. However, the function of the room clusters and patio groups is still open to question, for which reason they have deliberately been given formal designations. They are similar entities, differing in that patio groups exhibit a more orderly arrangement of rooms, have larger, well-defined courtyards and are generally more carefully constructed. Both types of structure have similar architectural features and contain labyrinths of small rooms with compartments and burials. Both appear to be in the process of expansion.

The layout of the room clusters and patio groups is comparable to that of certain late structures on the north coast. In particular, the former resemble the small irregularly agglutinated rooms of Chan Chan and the irregular agglutinated villages of Virú (Topic 1980; Willey 1953, p.7). The patio groups resemble some of the intermediate architecture at Chan Chan, (Klymyshyn 1980), outlying sites in the Moche valley (Keatinge 1975) and compound villages in Virú (Willey, ibidem). At the same time none of the Lurín structures exhibits the symmetry of some Chimú rural administrative centres, nor is there any feature in the study area that resembles an audiencia as defined by Andrews (1980).

Unfortunately no room cluster or patio group on the central coast has been as thoroughly excavated as some of the related north coast
structures, where hearths, storage bins, grinding stones, vessels and workshops have been found, (see authors cited above). These associations have led to the designation of such structures as peasant or elite residences, according to the layout, architectural features and amount of open space that the structures contain. However, despite the lack of excavation on the central coast, there are still two important differences between the two areas. Firstly, although the north coast structures seem to contain above-ground compartments, often designated bins (Topic 1980, fig. 2), they do not have the subterranean compartments found in the Lurín. Secondly, the north coast structures do not contain burials.

My own view is that the Lurín room clusters and patio groups are ritual houses with multiple functions, built in honour of certain groups of ancestors. The more imposing structures could be either the ritual house of the local curaca, or that of the most important huaca. The implication is that those who traced their ancestry to a particular pacarina or huaca would be buried in the same ritual house. Rites would continue to be held in these houses in order to ensure the well being of the dead ancestors who, in their turn, looked after the lands belonging to the group in question. Such a view would account for the continual remodelling of the structures. Each lineage or family head would have his own set of rooms and courtyards in which to celebrate rites for the dead. When he died, he would be buried in those rooms and a fresh, adjoining set created for his heir. Such a view is supported by both archaeological and documentary evidence.
Archaeological Evidence

1. The plans of site 84 (S.P. 12A, B and C) show that rooms were changed to accommodate tombs. The rooms must have had a different function before being remodelled, otherwise they would have been built as tombs in the first place. The reconstruction involved the raising of the height of the walls; the sealing of entrances; the incorporation into the sealing material of projecting stone steps, roofing stones and projecting bones; the creation of compartments and the construction of a new entry on a different level.

2. The access patterns show that a single building was divided into two or more self-contained but structurally similar sections, each with its own entrance. This layout can best be appreciated in the sixteen blocks at site 136 and the block to the north of the patio group at site 137 (S.P. 3A and 4).

Of the sixteen blocks at site 136, one (2d) has three entries from the exterior; ten (1a, 1c, 1d, 2a, 2b, 3b, 3c, 3d, 4c, and 4d) have two entries; and five (1b, 2c, 3a, 4a, 4b) have one entry. In the small block at site 137 there are two entries. These entries lead to a small courtyard from which there is a choice of rooms to be entered next. By taking any one of the options, one could pass through a set of rooms and finally reach a room more secluded than the rest. Some of these secluded rooms have sealed doors. The access to others is via projecting stone steps over the wall. Some patterns are more restrictive at the beginning, such as in block 4b at site 136, where after entering the initial courtyard, there is only one entry to the building interior. Since the walls of this block are higher
and thicker than those of the others, it must have sheltered something or someone very important. The above suggests that similar activities were carried out separately, but by connected groups, otherwise single buildings would not have been divided up in such a way. It also shows that certain activities or persons required a certain amount of seclusion and that access to these activities or persons was very restricted.

3. The charring and subsequent replastering of the walls implies that there were deliberate fires before the room was reconstructed or used by someone else.

4. The presence of various-sized vessels set in the ground at sites 57 and 35 implies food storage. The fact that some of the vessels were very large indicates maize storage and chicha brewing. The finding of a complete Brown Ware I cooking vessel at site 57 suggests food preparation.

5. The finding of guinea pig excrement in compartments at site 28 and in the test pits at site 137 suggests that these animals were kept in the room clusters, probably for divination rituals, (Arriaga 1968, chap. 4, pp. 210, 213).

6. The presence of sherds from small Cuzco-style ceremonial vessels at site 136 implies that ritual vessels were kept in the room clusters, since such vessels are not found on dwelling platforms.

Documentary Evidence

1. Cieza de Leon's description of coastal burial houses corresponds to the general impression of the ritual architecture:
En muchos valles destos llanos, en saliendo del valle por las sierras de rocas y de arena, hay hechas grandes paredes y apartamientos adonde cada linaje tiene su lugar establecido para enterrar sus difuntos, y para ello han hecho grandes huecos y concavidades cerradas con sus puertas lo más primamente que ellos pueden. (1947, chap. LXIII, p.416)

2. There is Blas Valera's account of the tombs of kings and rulers. Although this account is chiefly applicable to the Chimú rulers, it is suggestive of the kind of treatment, on a smaller scale, that could be given to curacas and other lineage heads.

El sepulcro de los reyes y grandes señores era como una casa de habitación con su sala, cámara y recámara con todos los demás lugares necesarios para la despensa, cocina, patios, corredores, portadas etc. Muerto el rey, le metían el difunto en la recámara o aposento que estaba aparejado y sentabanlo allí y tapiaban la puerta y ventanas y en la antecámara le ponían todos sus tesoros y vajilla y ropa y ofrecían mucha comida con pan y vino hecho de grano de maíz ... luego como morían sus (amigos y criados) los metían embalsamados en la antecámara si era varón y en aposento del tesoro si era la mujer. Estos sepulcros o huacas estuvieron mucho tiempo patentes, excepto los aposentos donde estaban los difuntos y los tesoros, que tenían tapiado las puertas y ventanas, empero los atrios y portales y salas y otras piezas estaban abiertas para que entrasen a rogar a los dioses por aquellos difuntos y a guardárselos por sus tandas y tareas. (1950, p.145)

3. Arriaga stated that after someone died, the door he used was sealed up:-

... cierran la puerta por donde sacaron el difunto y no se sirven mas de ella. (1968, p.216)

This explains why doors were blocked.

4. Medina describes a huaca or shrine at Huacho on the north central coast:-

Se entra al adoratorio (que también está cercado y hecho de la misma pared que el callejón) por diferentes compartimentos y divisiones, unas que servían para los serranos y otras para los yungas y para las mujeres de estos habían también diferentes entradas. (1920, p.89)
This statement gives a reason for separate entrances and divisions within structures. It also indicates the kinds of groups that could have used such divisions.

5. The visita of Canta in 1553 records the fact that in most villages there were special houses for serving or storing food and for weaving.

.... y contamos las casas deste dicho pueblo de Canta y hallamos noventa y seis casas pobladas y veinte y una casa de servicio donde tiene sus comidas...

.... y contamos las casas de dicho pueblo (Yaso) y hallamos diez y nueve casas pobladas y tres en que echaban sus comidas.

.... en todos los dichos pueblos ya visitados les hallamos casas donde hazian ropa.

(Rostworowski 1978, pp.231-264)

This implies that certain activities such as weaving and food storage were carried out apart from domestic structures.

6. Matienzo suggests that food was not consumed at home but in public places:-

.... que no les consientan comer todos juntos en la plaza, antes coma cada uno en su casa, si no fueren algunos dias de fiestas principales. (1967, p.56)

Food could easily have been prepared and consumed in the court-yards of ritual structures, which might explain why there are so few signs of food preparation in the dwellings.
Both the archaeological and documentary evidence suggest a variety of activities that could be carried out in the ritual structures. Such activities might be summarised as follows:

1. The storage of food needed for rituals and offerings to the dead and to huacas.
2. The preparation and serving of food, including chicha.
3. The weaving of cloth needed for rituals, burials and tribute.
4. The storage of valuable or sacred objects, such as conopas, cloth and tribute goods.
5. Esoteric rites, curing and divination.
6. General festivities, dancing and drinking in honour of huacas and the dead.
7. The administration of lands and flocks belonging to the group and its huacas.

III. Community Architecture

This kind of architecture is found throughout the study area. Since it includes various kinds of structures, each component will be discussed separately.

1. Agricultural Terraces

   A. Distribution

     Eight of the fourteen sets of agricultural terraces dated in Chapters Three and Four were in use during the LIP and LH. Their specific location with regard to sites and irrigation ditches is shown on the site maps and plans indicated in Table 33. It will be
seen that there are three sets in Sisicaya and Chontay, and one each in Piedra Liza and Huaycán. Each set is watered by a different ditch and is located above the modern road, except for the set at site 84.

B. Description

All sets are laid out in an orderly fashion except for those at site 133. However none of these sets is as spectacular or as well constructed as the earlier terraces of sites 60 and 62, (S.P. 7A and 78). Most of the terraces in question exhibit crumbling pirca walls and have no run-off channels, although the walls of the terraces near site 354 were once mortared.

At site 136 there are from six to eight levels of terracing. Those terraces closest to the site are divided into irregularly-shaped plots, the smallest being 15.00 by 20.00 m. The dividing walls are 1.00 m high and as much wide. At site 104 (S.P. 14) the twelve levels are similarly divided by thick cross walls, 0.70 m wide and 1.00 m high, although the smallest plot is smaller than any of site 136.

The width and height of the terraces vary, depending on the degree of slope. For example terraces at site 108 are wider and lower than those near site 354. The height of the retaining walls varies from 0.50 to 1.00 m. These walls usually extended 0.15 m above the level of the ground behind them in order to prevent soil erosion. Interestingly, this feature is apparent at sites 104 and 136, but not elsewhere, where the retaining walls are flush with the surface of the ground.

The land beneath these terraces is now divided into large sloping fields. It was probably once gently terraced and divided
into smaller plots, as it is below the modern road at sites 96
and 84.

C. Discussion

Although these sets of terraces were in use during the late
periods, most were probably constructed much earlier during the
EIP. Only the two sets below sites 104 and 136 are associated with
sites built during the LH. Those at site 136 were probably built
then, but those at site 104 are more likely to be a rehabilitation
of older terraces. In view of what has been suggested in section II
on the ritual architecture, any land reclaimed for agricultural purposes
will need some real or fictitious ancestors to care for it. The
construction of new terraces, or the rehabilitation of old ones, would
explain why the above sites were built, - to house ancestors or huacas
to whom the lands would be dedicated.

2. Irrigation Ditches

A. Distribution

There are ten irrigation ditches on the north bank and seven
on the south. These ditches are all in use today, although their
final sections may have been abandoned. Most hill slopes are
currently irrigated by a ditch, except for two areas:— one on the
south bank between Huarangal quebrada and the bridge at Canturía;
the other on the north bank between sites 102 and 107.

The location of the ditches associated with agricultural terraces
can be seen on the appropriate site map indicated in Table 33. The
location of the others can be found on G.M. 9. On this map a
distinction has been made between ditches in use today and ditches that have been abandoned. In most cases the latter are extensions of the former, but sometimes the origin of abandoned ditches is uncertain. Most of these abandoned sections can be dated to the EIP and were not in use during the late periods, because the Inca road has clearly interfered with their functioning.

B. **Description**

The system is a branching one, as can be seen on S.M. 2 and 3. This means that a major ditch will fork as it crosses a fan. The upper branch will end with the fan. The lower branch will continue downvalley.

Ditches are taken off the river at a suitable spot, preferably at a point where the river is flowing on a level, so that water can be diverted by cutting a deep ditch and building a stone dam out into the river. After the ditch has had an opportunity to branch away, the river needs to fall steeply, so that the ditch can rise above the valley floor. These ideal conditions cannot always be met - witness the failure of ditch VII to water much land around Chontay. Consequently it is unlikely that the *bocatomas* have changed since the late periods.

Ditches vary in length from 4 kms to 0.40 kms. Those currently in use are dug into the earth without a lining and are about 20.00 m below the early ones which were usually stone-lined. Late ditches are as much as 1.00 m deep and 0.50 m wide, but the early ones are smaller.

C. **Discussion**

The only ditch that appears to have been built during the LH is no. II, which waters the terraces below site 136. The other ditches appear to date back to the EIP but were still in use during
the late periods, their upper branches having been abandoned
during the MH. It is fairly certain that all ditches in use
today were also in use during the late periods, although they
probably irrigated more land than they do now. For example,
ditches XII, XIV and XV on the south bank are not currently being
used to their fullest extent, although they have been in the past
forty years.
<table>
<thead>
<tr>
<th>Location</th>
<th>Sector</th>
<th>Length of Terraces (kms)</th>
<th>Remarks</th>
<th>Ditch</th>
<th>Length (kms)</th>
<th>Remarks</th>
<th>In Use</th>
<th>Date</th>
<th>S.M.</th>
<th>S.P.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTH BANK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From beneath site 169 to Canturía quebrada</td>
<td>Sisicaya</td>
<td>1.00</td>
<td>Inca road must have run beneath them</td>
<td>I</td>
<td>4.00</td>
<td>Longest ditch in study area</td>
<td>Yes</td>
<td>EH-LH</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>From beneath site 136 to site 354</td>
<td>Sisicaya</td>
<td>0.50</td>
<td>Those at west end are a separate set from those beneath site 136</td>
<td>II</td>
<td>1.50</td>
<td>--</td>
<td>Yes</td>
<td>LH?</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>From beneath site 66 to next quebrada town-valley</td>
<td>Huaycán</td>
<td>0.75</td>
<td>Ruined and not as impressive as those of sites 60 and 62</td>
<td>IX</td>
<td>2.00</td>
<td>Much longer during EIP. Cultivation peters out at west end.</td>
<td>Yes</td>
<td>EIP-LH</td>
<td>10, 11</td>
<td>-</td>
</tr>
<tr>
<td>Location</td>
<td>Sector</td>
<td>Length of Terraces kms</td>
<td>Remarks</td>
<td>Ditch</td>
<td>Length kms</td>
<td>Remarks</td>
<td>In Use</td>
<td>Date</td>
<td>S.M</td>
<td>S.P</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------</td>
<td>------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------</td>
<td>------------</td>
<td>---------</td>
<td>--------</td>
<td>-----------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>SOUTH BANK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At site 133 on the Balcon-</td>
<td>Sisicaya</td>
<td>0.30</td>
<td>Built as small plots over fan. Haphazard appearance.</td>
<td>XVI</td>
<td>1.50</td>
<td></td>
<td>Yes</td>
<td>EIP-LH 22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cillo de la Palma</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From beneath site 109 to</td>
<td>Chontay</td>
<td>1.00</td>
<td>Regular appearance. Cultivation in late periods as far as pirca wall</td>
<td>XV</td>
<td>3.00</td>
<td>Ditch</td>
<td>Partly</td>
<td>EIP-LH 20,</td>
<td>20,</td>
<td></td>
</tr>
<tr>
<td>site 113</td>
<td></td>
<td></td>
<td>on S.M.20. Most no longer under cultivation.</td>
<td></td>
<td></td>
<td>concreted</td>
<td></td>
<td>only those</td>
<td>21,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>in parts</td>
<td></td>
<td>below site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beneath sites 108 and 104</td>
<td>Chontay</td>
<td>0.60</td>
<td>Fair condition. Extensions ? Not all cultivated during XV and XIV</td>
<td>?</td>
<td></td>
<td>Only lower extension reached</td>
<td>No, though</td>
<td>EIP-LH 19</td>
<td>15,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>late periods.</td>
<td></td>
<td></td>
<td>site 104</td>
<td></td>
<td>some re-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>cently cul-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>tivated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Sector</td>
<td>Length of Terraces (kms)</td>
<td>Remarks</td>
<td>Ditch</td>
<td>Length (kms)</td>
<td>Remarks</td>
<td>In Use</td>
<td>Date</td>
<td>S.M.</td>
<td>S.P.</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------</td>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------</td>
<td>--------------</td>
<td>--------------------------------</td>
<td>--------</td>
<td>----------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>SOUTH BANK (cont.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beneath site 84</td>
<td>Chontay</td>
<td>0.20</td>
<td>Below modern road. Extend in several levels to river.</td>
<td>XIII</td>
<td>1.75</td>
<td>Ditch now changed its course.</td>
<td>No</td>
<td>EIP-LH 18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From beneath site 94 to</td>
<td>Piedra</td>
<td>1.00</td>
<td>Now have pine trees. only land beneath site 96 is cultivated.</td>
<td>XII</td>
<td>2.60</td>
<td>Probably extended further be-</td>
<td>Partly</td>
<td>EIP-LH 17,18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Roads

A. Distribution

The survey showed traces of ancient roads on both sides of the valley in the study area. On the north bank the road can be traced upvalley from site 78 to site 160, where it descends from the slope to the flat. It disappears between Yanacoto and Nieve-Nieve quebradas and has been incorporated into the modern road, otherwise traces would appear on the hill slopes. There is an additional section leading from the Chaimayanca quebrada above the modern road (S.M. 1). This section must have crossed the river by a bridge opposite Antapucro.

On the south bank the road can be traced from Balconcillo de la Palma downvalley as far as Anchucaya, at which point it may also have been incorporated into the modern road. It can be picked up again before the Pichicato quebrada and continues to site 87 where it disappears.

In addition, there are paths that penetrate the quebrada interiors in order to link river valleys, usually the Rimac and Lurín (G.M. 1 and 2). These paths are not specially constructed unless they traverse a hill slope and need a retaining wall. There are also paths between sites and sectors of sites (S.P. 1, 3A and 10). These are not built up except where there are steps up a steep slope.

B. Description

The two valley roads exhibit the most constructional features. They are cut into the hill side and vary from 1.30 to 3.00 m in width, the average for the north bank being 2.00 m and for the south bank rather less. Where the north bank road crosses a quebrada fan, it is only faintly marked by a row of cobbles, the major building effort
being reserved for the steep hill slopes. On such slopes the roads are supported by retaining walls, which reach a height of 5.00 m on the north bank. These walls are made of mortared fieldstone. On the north bank there is usually a small parapet, 0.20 m high, in those places where there is a sheer drop to the river below. There may also be some small supporting platforms beneath the main retaining wall. The south bank road lacks the parapet, but both roads have retaining walls on the inside to prevent debris from falling onto the road.

Both roads climb to over 30.00 m above the river. If the ascent is steep, steps are cut into the rock or made of stone blocks or tree trunks. The stone steps are from 0.10 to 0.30 m high.

There is no evidence for chasqui huts on either road, but if these were made of quincha they would have vanished long ago.

The north bank road has been used well into the Colonial and Republican periods, for there is a repair date of 1907 carved into a rock along the road between sites 102 and 107.

C. Discussion

Early documents (Vaca de Castro 1908; Dávila Briceño 1965; Guaman Poma 1966) state that there was an Inca road in the Lurín valley and mention the names of the Inca tambos. The road was built to speed communications between two important centres:– Pachacamac on the coast and Jauja in the highlands.

The south bank road links sites of various periods, from the EIP to the LH, but the north bank one cuts through the earlier ditches and terraces at sites 98, 107 and 158 and is clearly post-MH. It is also wider and more impressive than the south bank one. The north bank location is important, since the tambos of Pachacamac and Sisicaya were
located on this bank. It is therefore likely that this road was the Inca one. The fact that it was in use down to 1907 strengthens the case. It would have crossed the river at Antapucro because the valley narrows conveniently there, and the next tambo, Chorrillos, is on the south bank.

The north bank road would have been used by chasquis and travellers on official business, whereas the south bank road would have been used by local peasants. Before the Inca road was constructed there were probably paths between north bank settlements. However, there are no large LH or LIP settlements on the north bank between sites 28 and 135, so that most of that sector must have been planned and built by the Incas.

4. Bridges

There is no architectural evidence for bridges, although the above discussion shows that the Inca road crossed the river at Antapucro. A modern bridge crosses the river now, but slightly further upvalley are traces of a Colonial bridge. This bridge is connected with the section of the Inca road that comes from Chaimayanca and must have replaced the Inca bridge. It was probably of the type described in the chronicles (Estete 1924, p.37; Cobo 1964, pp.262-264), and was maintained by the inhabitants of sites 164 and 353. It is likely that small local bridges crossed the river at various points.
5. **Tambo**

As stated in the section on roads, there is documentary evidence for one tambo in the study area. This was in the Sisicaya sector and its location will be dealt with in the following chapter. There is, at present, no architectural evidence for a tambo, which would have been a small one, as described by Morris (1966) for Tunsucancha. It would have been built by local labour under the direction of Inca architects.

6. **Fortifications**

There is no clear evidence for fortifications during the late periods. Although the hill top sectors of sites 137, 164, 105 and 90 are partly inaccessible and command a certain view of the surrounding countryside, none possesses high, thick retaining walls, behind which the local populace might shelter. Except for site 137 which has little architecture at its summit, the sites mentioned above and site 177 all have a similar arrangement of walls at the back of the ridge, before one ascends to the next crest. This arrangement consists of two parallel walls running perpendicular to the line of the ridge. These walls are no more than 1.00 m high and usually have an entry. Their appearance does not suggest fortification but, as explained previously, they do seem to define the limits of a sacred area and control access to it. These sites could have been used as places of refuge for the local populace during a skirmish, but they were not primarily fortresses. Such a period of strife would have occurred during the early LIP, when the Yauyos are known to have subjugated the Yungas of Sisicaya, (Rostworowski 1978, p.38).
Inca Influence on the Late Architecture of the Study Area

This influence can be described as direct and indirect. The former refers to the deliberate imitation of Inca features in coastal architecture; the latter to the adoption of traits that are not necessarily Inca, but that came to the attention of the study area's inhabitants through the increased communications that resulted from the Inca conquest.

A. Direct Influence

This is limited to three sites: 137, 136 and 57. Four features are imitated: gabled roofs, recessed doorways with barholds, trapezoidal doorways and large windows. The gabled roof and the trapezoidal doorways are the closest imitations of the Inca originals.

1. The Gabled Roof

There is only one example in the valley, at site 137. The roof is found on a structure that stands at the back of a 400 m² courtyard. The building consists of a rectangular room, 20.00 m long and 7.00 m wide, with two doors in its southwest wall and one in its northeast. The walls are currently 2.65 m above ground level, although they were formerly 0.50 m higher (Appendix II, Avillay, test pit 8). The northwest wall has a gable whose tip is 4.00 m above the present ground level. There are still two gable pegs in place on the exterior. The gable appears slightly squatter than most Inca examples and its counterpart on the southeast wall has fallen. This structure was plastered and
painted on its exterior and interior, as has been described in Chapter Three.

Other features of interest are the large windows, placed in two walls, and a recessed door, although the doors are not trapezoidal nor are they equidistant from the corners of the room. Since the room was 20.00 m long, it would have required two caña de Guayaquil poles lashed together to form a frame for the roof, and probably another vertical pole to support them.48

Site Plan 3B shows that the structure adjoined another smaller, square room and a room cluster. It is therefore clearly part of coastal rather than Inca architecture. It would appear that its Inca features were incorporated into the building because they conferred some kind of prestige. If the structure had been an Inca official's residence, one would expect an Inca ground plan,49 and that the building would be separated from the coastal ones, as is the Mamacuna at Pachacamac, (S.P. 20).

2. **Recessed Doorways with Barholds**

These have been described in section II of this chapter. They occur at two sites, 136 and 137. At the latter site there is one example in the gabled structure and another in one of the room clusters. This latter door has the barhold, but is not recessed. At site 136 there are seven examples from exterior and interior doors of some of the rectangular blocks.

The imitation of the Inca model is not exact because the recess is placed in only one jamb, although the gabled structure at site 137 has a door with both jambs recessed. Neither do the niches in the recess contain anything corresponding to the vertical

Both the recessed doorways and gabled roof are found in coastal architecture of the Sisicaya sector. They are not found down-valley. It is therefore probable that the Inca architects who supervised the construction of the tambo at Sisicaya provided the model for both features.

3. **Trapezoidal Doorways**

These are only found in the Conjunto de las Ventanas, at site 57 in the Huaycán sector. There is one entrance and one door, both of which are larger and more imposing than the average coastal entrance or door. The entrance leads from the exterior to the room with the windows. It is 2.45 m high, 1.00 m wide at the top and 1.20 m wide at the base.

The door is in the south wall of the great court. It is 1.90 m high, 0.65 m wide at the top and 0.82 m wide at the base. Two other doors in the same courtyard are also slightly trapezoidal since there is a difference of 0.10 m between their top and base width.

4. **Large Windows**

These are found at sites 57 and 137. They are about 0.60 m a side and from 1.20 to 1.30 m above floor level. At site 57 their situation is impressive, for there are four in a row along one wall of a room. They overlook a passageway with the Lurín valley in the distance. At site 137 they are found in the gabled structure. Two overlook the courtyard and the valley; two others overlook the back of the site. Although the windows are not trapezoidal in shape, there is nothing comparable elsewhere in the
valley, not even at Pachacamac. Like the other features discussed, they are found in coastal structures that can be dated to the LH. There are some slightly smaller windows at site 136. These also overlook a street.

It will be noted that the features imitated in the Sisicaya sector are different from those imitated in the Huaycán sector, except for large windows which are found in both sectors. These differences are possibly due to the fact that the builders at Huaycán were more familiar with the monumental architecture of the Mamacuna at Pachacamac. Thus they imitated large imposing features. On the other hand, upvalley the builders were more familiar with the tambo at Sisicaya and imitated features that are more likely to have occurred there. It might even be hypothesised that the inhabitants of the Huaycán sector did their mit'a service at Pachacamac and the inhabitants of Sisicaya did their service at the tambo.

B. Indirect Influence

This is limited to the same three sites in the study area.
There are two traits; the use of adobes and the use of a grid layout.

1. Adobes

The size and disposition of mould-made adobes has already been commented on at the beginning of this chapter. They are found only at site 136 and in the Conjunto de las Ventanas at site 57, both of which have been dated to the LH. It would appear that
similar adobes are found in LIP or Ichimay buildings at Pachacamac (Bueno 1978b, Jiménez and Bueno 1970), but no serious study has been made of their date and distribution at that site. If such adobes do date back to the LIP on the coast, it is strange that they were not used further upvalley during that period, since they would have enabled the builders to construct even-sided rooms and stronger walls. Further support for an LH date for the use of adobes comes from Stumer (1954, p.236), who finds them to be characteristic of LH construction at the late Rimac sites. Thus it is likely that the spread of adobe construction is due to the Inca conquest.

2. The Grid Layout

A comparison of the layout of site 136 (S.P. 4) with that of all the other sites mapped shows that the organisation of the room clusters there is unique. No other site is organised on a grid of intersecting streets, nor do room clusters elsewhere have the rectangular perimeter that they have at site 136. At site 137 there is a similar block which is separated from the patio group by a straight street, (S.P. 3A). These two buildings also date to the LH. Such a method of arranging buildings is not a particularly Inca one (cf. Kendall 1974, pp.101-105), but the fact that this grid system occurs only at an LH site suggests that the Inca conquest was in some way responsible for this kind of organisation.
General Conclusions on the Late Architecture

1. There are two kinds of architecture: pirca circles or platforms on which temporary quincha structures were placed; and a permanent architecture of mortared, plastered walls that enclosed rooms and courtyards. It has been inferred that the first kind had a domestic function and the second kind a ritual function.

2. The salient characteristic of the permanent architecture is the lack of overall planning behind its construction, so that its growth is haphazard and unpredictable. The principles underlying its construction are applicable to all sites in the study area. They are as follows:– a four-sided courtyard of variable size was marked out with boulders and large cobbles (S.P. 1, 4 and 10). This courtyard was gradually filled with rooms and smaller courtyards (S.P. 4). More rooms were added to the perimeter of the original rectangle, so that the ground plan became irregular in shape. Rooms were also destined to become tombs, so that compartments were built into them. The floor level was raised and new entries were created at an upper level. There were usually multiple entries from the exterior to any one of these complexes, but each entry led to a single set of self-contained rooms. Most of these complexes were still being expanded at the time of the Spanish conquest.

3. These complexes had ritual functions connected with the worship of ancestors and huacas.
4. Some people were deliberately excluded, or voluntarily excluded themselves, from burial in the ritual houses. Such people were buried in tomb groups on the hill slopes in single chambers on former house platforms. It is not yet clear whether these differences in burial pattern stem from differing social status or some other factor.

5. The smaller architectural features, such as niches, steps and projecting stones, are common to most ritual houses and show no significant variation over time or space.

6. The local populace lived around the ritual houses and scattered along the hill slopes bordering the valley.

7. As one crosses the study area from west to east there is a gradual change in the architecture. Sites in the Huaycán sector show some resemblances to Pachacamac, whereas sites in the Sisicaya sector show some highland features that connect the sector with Huarochirí. For example, sites 35 and 57 have ramps and upper courtyards bordering lower open courtyards, as found at Pachacamac. They also have some tapia construction and sculpted wall friezes that can be seen at other sites downvalley and on the coast. The buildings are more rectangular than those upvalley and they are well-plastered. At Sisicaya there are no ramps, wall friezes or tapia columns. On the other hand there are hill-top shrines with paved courtyards, as found further upvalley and in Huarochirí. Moreover, sites at the east end of the sector have very little plaster, like those upvalley near Antioquía.
8. Architecturally Inca influence is limited to a few isolated features that have been incorporated into the coastal building pattern. These Inca features probably had a prestige value for the local inhabitants. Other results of the Inca conquest can be seen in the use of new building materials and the way in which sites were laid out. This influence must be attributed to the Inca personnel sent to the Lurín to supervise the building of the road from Pachacamac to Jauja and the tambos at Pachacamac and Sisicaya.
Notes to Chapter Five

1. On the central coast Pachacamac has claimed the most attention, (Uhle 1903 and bibliography in the preface; Strong, Willey and Corbett 1943; Jiménez and Bueno 1970; Bueno 1975 and 1978b). Armatambo has been discussed by Bueno (1978c), and Maranga in the Rimac by Jijón y Canamaño (1949) and Kroeber (1954). Villar Córdova (1935) mentions all the above sites as well as Cajamarquilla, which has also undergone recent excavation (Sestieri 1972).

2. Trimborn has described visits to Macas in the Chillón (1969) and Huaycán in the Lurín (1972). Dillehay (1977 and 1979) has worked at Huancayo Alto in the Chillón, but his published papers are interpretative rather than descriptive. Engel (1966) has dealt summarily with some mid-valley sites in Chilca. Stumer (1954) has given descriptions of some Rimac sites.

3. Jiménez (1973) has cleared and restored Puruchuco in the Rimac and Bueno (1978a) has cleared some of the complexes at Huaycán (site 57), but the reports cited do not describe these excavations in detail.

4. Stumer applies Schaedel's 1951 classification to the architecture in the lower Rimac. Sites are classified as provincial elite centres, urban elite centres, urban lay centres and ceremonial centres. From the description given (Stumer, op. cit., p.215) the urban lay centres resemble the Lurín room clusters, and the provincial elite centres - the patio groups. However, since both types of architecture occur at the same sites in the Lurín, this distinction is not particularly useful.

5. EH architecture in the Lurín has been dealt with by Scheele (1970) and Williams, (1980). EIP architecture has been summarily discussed by Earle (1969 and 1972).

6. For a working definition of an ayllu see Rowe 1946, pp.252-256. The Canta visitas (Rostworowski 1978, Appendix II) show that one ayllu was usually spread over several villages and that no village contained more than one ayllu. For the present I am proposing that the room clusters of a single site were built by different groups of relatives who were all within the same ayllu, although they may have claimed descent from different ancestors or huacas.


8. For a discussion of pigments on murals see Bonavía 1974, pp.153-155; also Núñez Villavicencio's spectographic analysis of pigments from various sites in coastal Peru in the same work (pp.164-168). Muelle and Wells (1939) have analysed the pigments on the Temple of Pachacamac murals. Many of these were made from a haematite base, so that it is likely that the Lurín pigments also were. The barium sulphate is found east of Antioquia, (Dr. E.J. Cobbing, personal communication, 1982).
Notes to Chapter Five (cont.)

9. It is hoped to submit samples for identification in the future. One of my workmen indicated that the willows (Salix sp.) do not last well and are unlikely to have been used for roof beams. Local peasants were not able to identify the wood.

10. Dr. Ramiro Matos suggested that they were guanaco bones, which would indicate that the valley inhabitants were hunting a fair amount of guanaco. I feel that this is unlikely, particularly since the guanaco is never mentioned among the countless animals in the Huarochirí legends.

11. See Bonavía 1974, p.145. He quotes Zarate (1947, p.468) on the use of painted textiles over roofing material. My own reading of the quotation suggests that Zarate was referring to the early Colonial houses of Lima, rather than pre-Columbian dwellings. Blas Valera (1950, p.169) refers to the lack of doors and the fact that in the acolla huasi there were only "antepuertas de paño o lienzo". The cloths could have been similar to those on exhibition at the Puruchuco museum, many of which are painted.

12. It should be stressed that these categories are deliberately loose ones. It is expected that refinements to this classification will be made in the future.

13. The circles in sectors III and V of site 164 are a special case. They are really unlike the other house circles and require further investigation.

14. Arriaga 1968, p.203, gives a description of conopas which he refers to as the "lares et penates" of the indigenous peoples.

15. Modern peasant hearths have been discussed in Appendix II. Cobo (op. cit., book 14, p.243) describes a clay oven behind the door of peasant dwellings, but I know of no archaeological evidence for such a device.

16. Dillehay mentions similar structures at the site of Huancayo Alto in the Chillón (1979, p.28, fig. 5). The plan shows that the site la out is similar to that of the study area sites. However, Dillehay has classified the structures in fig. 5 as storage units. His excavations in these units (p.26) have given similar results to my own in the platforms, but our interpretations of these structures differ. He also refers to residential terraces (p.27, fig. 2) but unfortunately gives no plans of these.

17. Abandoned canes and esteras will be used in other ways by local peasants. I have noted in the study area that holes from which posts have disappeared eventually crumble away and leave no trace.

18. It is difficult to ascertain the presence of foundation trenches without excavation. However, in most cases the utilisation of boulders makes it clear that no trench was dug. In the room with the windows at site 57 huacucho activities have revealed a small foundation trench, 0.30 m deep. Since this part of the site has been dated to the LH, improvement in methods of wall construction may be attributed to the Inca conquest.
Notes to Chapter Five (cont.)

19. This is strange when one considers the amount of tapia used for similar structures in the Rimac and Chillón (Trimborn 1969; Stumer 1954). It may be that there is less suitable mud in the Lurín, with its narrower flood plain.

20. These sites were Pampa de las Flores A and B, Tambo Inca and the Potrero de Santa Lucia.

21. A preliminary study of room size has indicated that 100 m² is the best dividing line between large and small courtyards and hence between room clusters and patio groups.

22. Sites 177 and 343 are not on Table 8, because they are outside the study area. Neither is site 90 because I have made no measured plan. At site 137 the shrine was too high to be included on the plan.

23. Paved courtyards are found upvalley at site 286 and at late sites in Huarochirí (Hellmuth, field notes).

24. Dillehay makes a similar suggestion for similar terraces at Huancayo Alto in the Chillon (1979, pp.27-28 and fig. 2).

25. Miniature doors range from 0.60 to 1.20 m in height. Anything below 0.60 m is considered a communicating hole, even though it has a lintel.

26. This feature is not the exact equivalent of the Inca barhold (Kendall 1974, p.101; 1976 p.43), since it probably held a cross bar rather than a small vertical cylinder. In any case it is placed in the jamb rather than at the side of the door, as in Inca architecture.

27. In fact there is a similarly recessed doorway at the west end of the Colonial church at site 136, but there are no barholds.

28. This information was given to me by a huaguero who has been working in the valley for some years. There was no reason to doubt his word.

29. In one of his reports, Avila (1966, p.257) says that certain dead ancestors had their clothes changed every fortnight and that sacrifices were made as often.

30. See, for example, Estete's account of the "door" that led to the inner chamber where the image of Pachacamac was kept (1924, p.38).

31. For the disposition of benches in rooms and courtyards, see the plan of the Conjunto de los Nichos in Bueno 1978a, p.70. One can observe the narrow benches above the wide ones in both rooms and open courtyards, and also how the benches extend across rooms, ending at entrances. In one small room two niches are placed over a narrow bench. In one of the large open courtyards there are three pits placed in a high bench.
Notes to Chapter Five (cont.)

32. The closest design to this is one depicted by Squier at Armataamb, near Chorrillos. Squier calls the site Limatambo (1974, p.46).

33. These niches differ from niches described as feature "e" here, because they have no lintel and are sculpted out of the tapia. The evidence for a lattice design comes from a mass of fallen tapia. Lumbreras (1974, fig. 224) depicts lattices from Tambo Colorado, which are similar to the remains at site 28.

34. The nearest equivalent is the LH chequer design at Paramonga (Bonavia 1974, p.140, fig. 74).

35. Bonavia (1974, p.115) also mentions another mural, possibly similar to this one, which is on a wall at site 12 (Campo de las Flores A) in the Manchay sector. This mural had been located previously by Ravines and Ossío and apparently showed stylised maize plants in red, yellow and white. Bonavia, who only saw slides of the mural, disagrees with their interpretation, but it is sufficient to note that there are other late pictographic murals in the valley. Bonavia dated this mural as LH.

36. Site 136 is the only site built during the LH and inhabited during the early Colonial period. If any of the compartments there contained bones, it is likely that they were removed by the inhabitants themselves for secret burial elsewhere. Otherwise, Spanish priests and the extirpators of idolatry might have insisted on the removal of the bones to a specially prepared burial ground for pagans. In the case of site 71, the absence of bones poses a problem. Since their association with compartments is strong elsewhere, I cannot believe that burials were not made there. If I am correct in my interpretation of the room clusters and patio groups as ritual houses to honour ancestors and huacas, it is possible that the inhabitants of that site felt that certain huacas had failed them in time of trouble and therefore removed the bodies elsewhere. Another possibility is that when the Yauyos conquered the area early in the LIP (see Chapter Six), they destroyed the bodies, although this is less likely because, as stated previously, the site does not give the impression of having been sacked.

37. Duviols (op. cit. pp.254-255) stresses this point to explain the Indians' attachment to their lands and their removal of bodies buried in a Christian cemetery.

38. See Avila 1966, pp.241-266 and Duviols 1972, pp.91, 121, 126, 208, 253-256, for descriptions of the actions taken by the extirpators of idolatry with regard to the mallqui or bodies of ancestors. Also Hemming 1970, pp.222 et seq. for an account of the reprisals taken by the Spaniards after the siege of Lima.

39. Dr. E.J. Cobbing informed me that, in the villages of the Majes valley on the south coast of Peru, large vessels similar to Orange Ware III are still used to store maize in grain form.
Notes to Chapter Five (cont.)

40. Structures in the Lurín have not been called compounds because so few are truly rectangular and none is surrounded by a high enclosure wall, as at Chan Chan (Klymyshyn 1980).

41. See the maps of Quebrada del Oso and Milagro de San José and Katuy in Keatinge 1974.

42. It is unlikely that the units, whether room clusters or patio groups, were all built for curacas. In such a case a site like 136, which cannot have been occupied for as much as fifty years, would have something like sixteen curacas simultaneously. In the province of Canta the chief village had a hierarchy of twelve curacas (Rosworowski 1978, pp.236-238). A village like 136 is unlikely to have had more than a provincial capital. For the same reason each block cannot be connected with a separate ayllu, which would imply that a small village had sixteen ayllus. To take Canta as an example, there were seven or eight ayllus in the whole province and these were spread out over sixteen villages.

43. Paqarina refers to the place of origin of an ayllu or lineage (Arriaga 1968, p.202). Ávila (1966, p.255) states that each family in Huaroquirú had its own idol or household god, from whom that family descended (possibly a physical manifestation of a paqarina). These idols were kept in the house.

44. A related view of Chimú social organisation and burial patterns has been expressed by Conrad (1981).

45. Of these five, the walls of 3a and 4a are in poor condition, so that there was probably more than one entry. Block 1b may have had another entry at the north end, which has been damaged by bulldozing. The actual entry of 4b and 2c cannot yet be marked because of wall debris.


47. Part of this ancient road was used by Raimondi on his 1862 journey up the Lurín (1945, pp.7-16).

48. See Gasparini and Margolies 1977, pp.171 and 265-268 for diagrams as to how this could be done.

49. Reference should be made to the ground plans given in Gasparini and Margolies (op. cit., passim) and in Kendall (1974). The structure's situation should also be compared with Menzel's descriptions of Inca administrative centres on the south coast (1959, p.221).

50. The height corresponds to the average height above floor level of the typical Inca window (Kendall 1976, p.34).

51. Mould-made adobes must be distinguished from the smaller hand-made adobes of earlier periods.
52. It is interesting that Bonavía found adobes used in certain structures at all the downvalley sites he studied, except at site 16 (Quebrada de las Golondrinas). An inspection of the sherd collections from these sites suggests that all were occupied during the LH, except site 16, which is only LIP.

53. The layout of courtyards with rectangular structures at sites 137 and 164 is possibly a result of the influence of an Inca-type compound. Similarities between the two courtyards have already been mentioned. The structure at site 164 also has large windows.
CHAPTER SIX

SETTLEMENT AND ETHNOHISTORY WITH PARTICULAR REFERENCE TO
THE LATE HORIZON.

This chapter discusses the settlement of the study area during
the late periods, focusing on the LH. It also correlates the
archaeological information with that given in early Spanish documents,
the most useful of which are the visitas to the Guancayo and the
Canta in the neighboring Chillón valley (Rostworowski 1978,
pp.216-264; Espinoza 1963, pp.58-69), and the legends of the Yauyos
collected by Francisco de Avila (1966; 1980). Such information can
be used as a basis for making inferences about the economic, social,
political and religious organization of the study area during the
late periods. At the same time summaries are provided on the
earlier periods and the Colonial period in order to give some context
to the late settlement.

1. The Preceramic Stage

There are no known Preceramic sites in the study area, although
they do exist on the coast and in the lomas, (MacNeish et al., 1975,
pp.21-30). It is doubtful that there could have been permanent human
habitation in the mid-valley during this stage because of the seasonal
nature of the food supply. The valley floor would have been covered
with more monte than it is today and this would have harbored more
small mammals, deer and a greater variety of bird species. By hunting
and trapping these and gathering wild fruit and vegetables, small
nomadic groups could have obtained enough food for subsistence as they
moved from highlands to coast in quest of other resources. Such an
2. The Ceramic Stage

A) The Initial Period

The only site in the study area which has been identified as having an IP occupation is the ceremonial mound at site 98, although there are two others downvalley in the Manchay sector (Scheele 1970, p.17). There must have been nearby habitation sites to sustain such a centre, but up to now these have not been recognised. Until the advent of irrigation agriculture the mid-valley could not have been inhabited on a permanent basis. Floodwater farming is not feasible in the study area because of the slope of the valley floor away from the river, the depth of the river channel and the gradient over which the water flows (fig. CIX). The fact that a ceremonial centre was established during this period implies stable populations and that the techniques of irrigation were known and applied.

B) The Early Horizon

There are few known sites for this period either in the study area or downvalley. Sites 98, 168 and 105 are discussed by Scheele (op. cit., pp.190-200). The rest that have been entered on the map are questionable. The settlement pattern is puzzling. There seems to be some habitation in the quebradas around Sisicaya, but no ceremonial centre. In Chontay, Piedra Liza and Huaycán there are centres, but no accompanying habitation. In all probability many EIP sites were also occupied during the EH and the two occupations need differentiating,
(see Chapter One, note 8). During both the IP and EH the settlement pattern must have been one of small scattered farming villages on quebrada floors, with various economic, political and religious ties to the ceremonial centres.

C) The Early Intermediate Period and early Middle Horizon

Although the time span of the EIP is equivalent to that of the EH, the difference in settlement is remarkable, for most hill and quebrada slopes were occupied, except for a section along the south bank where the river runs too close to the hills. The ridge tops were also inhabited, possibly for defensive purposes (Earle 1974, p.475), or because they served as shrines. In this connection, an interesting phenomenon in the study area during this period is the complete lack of burials. If, as I think likely, the dead were buried in hilltop shrines, then they were either removed at a later date by their descendants and reburied elsewhere, or else removed by invaders. Petroglyphs are associated with one of the shrines and also with a set of agricultural terraces. Their presence is probably an indication that such areas were sacred precincts. During this period the irrigation system was expanded to its maximum, although some final sections of the ditches were never used. Early MH sherds in the Nievería style are the last to be associated with such ditches.

From the archaeological evidence, Earle (op. cit., pp.475-476) saw an expanding Lima state with its centre at Pachacamac. There is both ethnohistorical and linguistic support for this view, although it is debatable whether there was a Lima culture or state. The peoples of the coast are known as "Yungas" in most chronicles (e.g. Cieza 1947, chap.LX, p.413). In Avila's texts (1966, chaps.1 and 9), there are references to a former time when the Yungas held and worked land in
the highlands and worshipped a deity or huaca called "Guallallo Carhuincho". This huaca was eventually overthrown by another known as "Pariacaca", which is a mountain some miles from Huarochirí, (see G.M. I). Pariacaca was the chief huaca of the Yauyos, the central highland ethnic group at the headwaters of the Cañete, Mala, Lurín and Rimac (Rostworowski 1978, pp.31-44). Pariacaca's son,"Tutayquiri", was later responsible for driving the Yungas back to the coast along the upper courses of the Lurín and Rimac, as far as Pariachi in the latter valley (Avila 1966; 1980, chap.12). Such tales imply that coastal peoples had expanded into the highlands at some past date. No date is suggested because the events related are part myth, but such an expansion would fit the archaeological evidence which shows that Lima style pottery can be found upvalley at least as far as Cruz de Laya (MacNeish et al., 1975, p.54).

At the same time there is also linguistic evidence for the Yunga penetration of the highland zone. This has been postulated by Torero (1972, 00.51-106) in his analysis of the development of the proto-Quechua language. The greatest dialectal diversity in Quechua is to be found in the present department of Lima which, therefore, must be the heartland from which the proto-language expanded during the latter part of the MH. The date of,880 has been obtained through glotto-chronology. Thus the expansion of Quechua has been correlated with the increasing influence of Pachacamac (Torero, op. cit., p.98).

Unfortunately, there is no evidence for any MH Pachacamac style pottery upvalley, or even downvalley beyond the immediate environs of Pachacamac, which is surprising if the expansion of proto-Quechua and of the MH city-state of Pachamacac are indeed connected. Since the Lima style pottery does show the requisite distribution, it is possible that the linguistic expansion should be dated earlier.
D) The late Middle Horizon and Late Intermediate Period

There is a change in part of the settlement pattern during this period. Habitation continues along hill slopes all over the study area and is still above the cultivated land and the later irrigation ditches, but below the older ones. Hill top shrines such as sites 177, 90 and 105, are still in use during the late MH and early LIP, but by the late LIP they have all been abandoned, their place being taken by the ritual houses that are built on quebrada floors, often close to the edge of the water channel. The earlier ditches are no longer in use and in some cases they appear to have been converted to a path by filling in their channel. Former agricultural terraces are now used for habitation, for pits were dug into them and tombs were constructed on them. During the early part of this period, some dead were buried in room clusters and some on the quebrada floor or on low-lying spurs, in a honeycomb of small oval semi-subterranean tombs. Later tombs were rectangular multi-chambered clusters in similar locations. Some dead were also buried in rectangular chambers on house platforms. Long broad terraces, with stairways leading to them, were used as a focal point for ceremonies and a new ridge-top shrine with paved courtyards was established at site 164.

The reasons for the changes in settlement can be attributed to both coastal and highland influences. More is known about the latter than the former but, on archaeological evidence alone, it is clear that the form and inspiration for the room clusters and patio groups comes from the coast, since there are general similarities between the sites in the study area and those downvalley and Pachacamac. The 1577 Retasa shows that the Sisicaya sector was still inhabited by Yungas, but under the political jurisdiction of the Yauyos (Rostworowski, op. cit., p.112). Mention has already been made of a certain "utayquiri" who conquered
the region. If Rostworowski is correct in equating this legendary culture hero with a Yauyos leader, "Tarayquiri" whose 600-year old mummy was seen by a Spanish priest in 1611, then the Yauyos conquest of Sisicaya would have taken place around 1000 A.D. This is the beginning of the LIP, which is a reasonable date for the appearance of the Dark Brown Ware and the cessation of the Orange Ware coastal tradition in the upper sectors of the study area. One might hypothesise that the upvalley Yungas were obliged to use different clay sources and that trade and exchange became more frequent with the Yauyos and less frequent with the coast. By the LH the Orange Ware tradition on the coast was reasserting itself and there is ethnohistorical information that there was ample contact between coast and highlands. For example, the coastal huaca Pachacamac had a son called Llocclayhuancu, who was discovered among the Checa during the LH (Avila 1966, chaps. 20-22).

The reason behind the Yauyos' conquest of the upper Lurín and Rimac was to obtain lands for growing coca. Mention has already been made of the suitability of the midvalley Chaupi-yunga zone for the cultivation of this plant (Chapter Two; Rostworowski 1973). In the Chillón there were disputes between highland ethnic groups and the Yungas over the prime coca lands at Quivi, as seventeenth century court cases show (Rostworowski 1967-68; 1972). In the Rimac there are place names like Cocachacra, which indicate that the plant was cultivated there. There are no place names or specific documents for the Lurín, but there is the statement in Avila's texts that the inhabitants of Sisicaya and Chontay took the very best of their coca leaves, before they were even tasted, as an offering to one of the sons of Pariacaca, a huaca who resided between Sisicaya and Sucyacancha (Avila, 1966, chap. 8, p.61). They could scarcely have done this if the plant were not cultivated in the Lurín.
Neither the Avila texts, nor the Retasa of 1577, give any indication of the amount of land held by the inhabitants of Sisicaya and Chontay. In all probability their lands extended from somewhere between Palma and Antioquia downvalley to Piedra Liza, so that some part of them lies outside the study area. Furthermore neither document mentions Huaycán, which is clearly set apart from Sisicaya by the *bocatoma* of the ditches of San Francisco and Huaycán (nos. IX and XI on G.M. 9). The Huaycán sector may have held independent status within the Yunga polity of Ichimay as described by Bueno and Rostworowski. Archaeological evidence for this hypothesis can be found in the similarity of the patio groups in Huaycán to those downvalley and at Pachacamac, and the fact that during the late periods there is more coastal style Orange Ware in Huaycán than there is upvalley. In the Chillón valley, for which there is abundant ethnohistorical data, it is clear that groups living at a similar altitude to Huaycán, such as at Sapan and Macas, were part of a larger coastal polity centred at Collique. Although the exact relationship between the curacas of Huaycán and Pachacamac is unknown, it is more than likely that the former paid some kind of tribute to the latter in return for protection, as did the curaca of Quivi to the curaca of Collique.

During the late periods there was also a great deal of intervalley communication that involved the use of lateral quebradas rather than the main river valleys. G.M. 1 and 2 show some of these routes which must be very old, although it is difficult to prove this archaeologically. For example, there are many paths to Santo Domingo de los Olleros from the coast that do not need to use the Lurín valley (G.M. 2). Such routes are still used by modern herders bringing flocks to the *lomas* to pasture, much as shepherds brought llamas there in the past. Coastal potters probably used the routes to obtain clays, as did highlanders who
needed fish. There are also routes between the Rimac and the Lurín and the latter valley and the Chilca quebrada. The Quebrada de Tinajas is an important route to Olleros, from where another quebrada leads to Chilca, or else one may cross the pass to Huarochirí. The quebrada at Antapucro leads to Tinajas, thus avoiding a journey down-valley. To the north there were at least four well-traversed routes to the Rimac:— one up the Yanacoto quebrada which comes out between modern Chosica and the colonial reducción of Santa Inés de Chichima; one up the Nieve-Nieve quebrada that led to ancient Mama, now Ricardo Palma; one up the Chaimayanca quebrada that led to Cocachacra and one up the quebrada of Chamacha at Antioquía, that led to Tupicocha and Tuna. Ethnohistoric evidence shows that these were well traversed, for at Mama there were important female huacas: the wife of Pachacamac and Chaupiñamca, the sister of Pariacaca, who also had another sister huaca at Chillaco, a few kilometres upvalley from Sisicaya. The inhabitants of the upper Rimac valley and of the Sisicaya region regularly sacrificed and made offerings to these huacas, (Avila 1966, chap. 8-13).

E) The Late Horizon

I Settlement

The settlement pattern during this period is one of medium-sized to large villages placed behind and beside the ritual structures on the quebrada floors. There were also some hamlets scattered over the hill slopes. These hamlets must have consisted of no more than half a dozen families and are identified by the presence of LH sherds in the area in question. Support for such a range in settlement size comes from the Canta visitas of 1549 and 1553. Although they refer to a highland zone, they show that there was a wide range in the number
of occupied houses per village: from five to one hundred and eighteen.

In Sisicaya the population is heavily concentrated in the quebrada villages on the north bank and there is no hill slope occupation. Such a concentration must be due to Inca reorganisation of the population in this sector, in order to service the tambo better and to work the lands that the Inca appropriated for themselves.11 The new occupation at Antapucro on the south bank may have been connected with the maintenance of the bridge over the river.

At the beginning of the Chontay sector there is scattered settlement on the north bank as far as the Guayabal quebrada, after which there was very little cultivable land. The regular pattern occurs on the south bank, with villages at Antivales and Anchucaya and a few scattered houses between.

There is little settlement in Piedra Liza or Huaycán, the last of which presents a problem with regard to domestic habitation. There is a flourishing ritual architecture at sites 57, 35 and 28, but little evidence for a sustaining population. Possibly some of it has been obliterated by modern settlement changes and a slight increase in cultivation on the south bank. The apparent lack of domestic habitation there may also be due to the short duration of the period in question.

II Population

Various methods can be used to calculate the population during this period, although archaeological ones are no more reliable than others. Previous comments on sherd distribution in Appendix I have shown that the calculation of population numbers from sherd densities
would be a meaningless exercise. House counts and calculation of floor space per person are also difficult, because it is not certain how many platforms or circles belonged to a single household.

If one takes the site of 135 (S.P. 5) as an example, there are thirty-one units, three of which have from four to five rooms and two of which have two rooms. These rooms range in size from 2 to $30m^2$.

If each unit were to belong to a single household, it would imply a population of 155 persons, $(5 \times 31)$, taking five as the size of the household, which is reasonable for the Andes (Isbell 1977, p.11). But it is highly unlikely that each unit did house people, since some of the single units must surely have been used for storehouses. An examination of the Canta visitas shows that the number of storehouses per village ranges from 1% to 50% of the houses counted. If these figures are applied to the units at site 135, a range of from 80 to 150 persons could be projected for the settlement. This range is a wide one, particularly if applied to the whole study area, for the upper limit will be almost double the lower limit. Therefore at present it is preferable not to derive population estimates from house counts.

Better evidence for population numbers can be found in ethnohistoric documents. The 1577 Retasa of the repartimiento of Huarochirí indicates that Sisicaya was one of the guarangas of the province of Yauyos. Dávila Briceño (1965, pp.155-165) in the Relaciones Geográficas de las Indias stated that under the Incas this province was classified as a hunu, i.e. it consisted of 10,000 taxpayers. It was also divided into two halves:—an upper half (Hanan Yauyos) and a lower half (Hurin Yauyos). From Hurin Yauyos Dávila Briceño created three Spanish repartimientos, or administrative divisions, one of which was the repartimiento of Huarochirí, which was the capital of the province.
The 1577 document states that this repartimiento consisted of six guarangas, or divisions of 1000 taxpayers. In practice, however, a guaranga is unlikely to have consisted of exactly 1000 taxpayers, but somewhere between 800 and 1200 (cf. Cohen 1973, pp.4-7). Confirmation of this can be found in the Guancayo visita where the guaranga actually consisted of 900 taxpayers divided not into nine but five pachacas, (supposedly divisions of 100 taxpayers), which indicates the flexibility of guaranga and pachaca numbers.

The multiplying factor used to calculate the true population from the number of taxpayers varies according to whether authors use rates of depopulation, or the ratio of taxpayers to the total population from early censuses. Rowe (1946, p.185) suggests a factor of 4; Shea (1976, pp.162-165), 4.18 to 4.38; Cohen (1973, p.7), 6 to 8; and Smith (1967/68, p.88), 9. My own preference is to use the lower figures of the above ratios, for data from visitas to nearby coastal and highland groups indicate a multiplying factor of about 5. Interestingly the ratios given in Table 34 are all close to the mean.

**TABLE 34**

<table>
<thead>
<tr>
<th>Source</th>
<th>No. Taxpayers</th>
<th>Total Population</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canta 1553</td>
<td>254</td>
<td>1145</td>
<td>1:4.5</td>
</tr>
<tr>
<td>Chacalla 1580?</td>
<td>1386</td>
<td>6820</td>
<td>1:4.9</td>
</tr>
<tr>
<td>Chacalla 1622</td>
<td>854</td>
<td>4561</td>
<td>1:5.35</td>
</tr>
<tr>
<td>Mama 1622</td>
<td>551</td>
<td>2177</td>
<td>1:3.5</td>
</tr>
<tr>
<td>Huarochirí</td>
<td>1481</td>
<td>9097</td>
<td>1:6.14</td>
</tr>
</tbody>
</table>

Mean 1:4.96
If one uses a multiplying factor of between 4 and 6, the range of population for the Sisicaya guaranga would be between 4000 and 6000 persons, if it were an ideal guaranga of 1000 taxpayers. If, on the other hand, the guaranga consisted of only 800 taxpayers, or as many as 1200, then the range would move from 3200 to 7200. The last figure must surely be considered an upper limit when bearing in mind the number and size of the settlements, only three of which, sites 164, 137 and 136, could be termed large. The problem is further complicated by the fact that the study area does not coincide exactly with settlements belonging to the guaranga of Sisicaya, for these extend further upvalley. Furthermore the guaranga may not have included the Huaycán sector. Nevertheless, for the sake of the argument I have considered the amount of land and the number of LH sites upvalley to be roughly equivalent to the Huaycán sector, so that the above estimates can be considered reasonable for the study area.

These estimates can be supported to a certain extent by considering the carrying capacity of the study area, although such a calculation is highly theoretical and tends to overestimate the population. In the study area, assuming that the present ditches are those in use during the LH with minor variations in course, there are 359 ha available for cultivation between Molle and Chontay and a further 2600 ha for the district of Antioquia (Arenas and La Rosa 1973). Since only about half of the latter district falls within the study area, I have considered the amount of cultivable land between Chontay and Chaimayanca to be 1300 ha. This gives a total of 1659 ha for the study area. Table 35 shows the possible maize yields for such an area and the number of people such yields could support. It is based on a variety of published estimates for both Mexico and Peru. Other estimates not utilised here will be found in Cohen's 1973 article.
### TABLE 35
**MAIZE YIELDS, CONSUMPTION AND POTENTIAL POPULATION OF THE STUDY AREA**

<table>
<thead>
<tr>
<th>Source</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>800</td>
<td>1,327,200</td>
<td>1327 (6635)</td>
<td>364 (1820)</td>
</tr>
<tr>
<td>B</td>
<td>1300</td>
<td>2,156,700</td>
<td>2156 (10,780)</td>
<td>591 (2955)</td>
</tr>
<tr>
<td>C</td>
<td>2272</td>
<td>3,769,248</td>
<td>3769 (18,845)</td>
<td>1033 (5165)</td>
</tr>
<tr>
<td>D</td>
<td>2800</td>
<td>4,645,200</td>
<td>4645 (23,225)</td>
<td>1273 (6365)</td>
</tr>
<tr>
<td>E</td>
<td>10000</td>
<td>16,590,000</td>
<td>16590 (82,950)</td>
<td>4545 (22,725)</td>
</tr>
<tr>
<td>F</td>
<td>6400</td>
<td>10,617,000</td>
<td>10617 (53,085)</td>
<td>2909 (14,545)</td>
</tr>
</tbody>
</table>

**Notes:**

**Rows - The Sources**

- **A**  
  Kirkby as quoted in Flannery 1976, pp.93-94. I have used a mean cob length of 10 cms as suitable for the LIP and LH, because the cobs from my excavations were approximately that length, allowing for a little shrinkage.

- **B**  

- **C**  
  Estimates given to me by Carlos de la Cruz, a peasant farmer in the Lurín. These are for a modern variety of maize used for animal feed.

- **D**  
  Isbell 1977, p.10. I have used the average of his estimates for modern peasant production based on dry farming with minimum irrigation.

- **E**  
  Isbell 1977, p.10. I have used the average of his estimates for modern hacienda production based on irrigation.

- **F**  
  Isbell 1977, p.10. These are his estimates for ancient yields.
TABLE 35 (cont.)

Notes: (cont.)

Columns - The Maize Yields and Population Estimates

I  The maize yield in kilograms per hectare per annum.
II The maize yield for the study area of 1659 ha.
III The number of households based on an estimated consumption of 1000 kilograms per household per annum. This is a figure suggested for Mexico by Flannery (1976, p.92), but given the Mexicans' dependence on maize tortillas to provide the bulk of their calories, it may be too high for ancient Peru.
IV The number of households based on Isbell's projected consumption of 2 kilograms per person per day, which is 10 kilograms per household of 5 persons per day and 3650 kilograms per annum. These consumption figures seem too high for Peru, particularly when compared with the Mexican figures. The total estimated population, using a figure of 5 persons per household, is placed in brackets after the number of households.

Such estimates assume that all cultivable land was used for maize production, that maize provided the bulk of the diet, that it was used for no other purpose but consumption by the local population and that there was one crop a year. Each of these assumptions can be questioned for the Lurín, so that the above figures only provide a theoretical upper limit to the population.

In the first place, excavations in refuse have shown the wide variety of plants likely to have been cultivated rather than imported into the study area. Many of these would have required separate fields from maize. In addition, the quantity of textiles in the surface collections shows that cotton must have been an important crop. Shellfish, llama bones, crayfish and fish from the refuse also suggest
that the local diet did not consist exclusively of vegetable products
and that some protein must have been supplied by animal flesh.
Furthermore, ethnohistorical evidence from the Huarochirí texts has
suggested that coca was an important crop in the study area. The
texts also show that, as well as being a food item, maize played an
important role in ritual, because both the plant and its by-products
of chicha and ticti (a beverage) were widely used as offerings to
huacas (Avila 1966, pp.71 and 115). Evidence from communities
living at a similar altitude in the Chillón shows that there were
separate fields for a variety of crops and that part of the maize crop
was destined as tribute to the Incas. This being the case, probably
only half of the maize harvested was actually destined for local
consumption.

It is certainly of interest that the figures for ancient Mexican
production and consumption fit the historical data quoted previously
better than the modern Peruvian estimates. The latter give impossibly
high population numbers and one might question their validity for the
Ayacucho area, for which they were originally compiled. A further
estimate from Cohen (op. cit., p.14) suggests that two people could be
supported on one harvested acre of maize per annum. This would give
a population of slightly over 8000 people for the study area, which is
over the limit suggested by the historical data. A population of that
order would imply a large guaranga at Sisicaya, but it may allow for
the greater extend of Huaycán lands vis-à-vis those of Sisicaya, or
else for a multiplying factor greater than 6, which is a possibility.
Taking all the data into consideration, including the archaeological
evidence for settlement, it is likely that there were slightly over
1000 taxpayers in the study area and a total population of between
5000 and 6000 persons.
III The Economy

Although archaeological and ecological data have indicated that the study area was relatively self-sufficient, they have also shown that the inhabitants had access to resources outside its boundaries. Some specific conclusions are as follows:

a) The inhabitants cultivated a wide variety of plants. Since these plants are found in refuse at both ends of the study area, it is likely that each community was self-sufficient. From the general frequency of occurrence of the different species, maize and cotton were probably the most important crops.

b) There are luxury items from distant sources, that are fairly widely distributed over the study area. Such are turquoise and spondylus, which must have been obtained by exchange or some redistributive mechanism.

c) Llama bones and shellfish are also widely distributed and can only have been obtained by exchange or through control of a different ecological zone.

d) The variety and distribution of stone, bone and wood tools, together with the half-finished and reshaped artefacts, suggest that manufacture was generally at a household level for clothing, pottery, ornaments and agricultural tools.

e) At the same time the quality of certain grave goods, such as Cuzco style vessels and Pachacamac Black Ware, suggests that there were full-time or part-time specialists in each community, since these items show enough individuality to indicate that they do not all come from the same source.

f) If the mine behind Chaimayanca was the source of copper artefacts,
which are also widely distributed in the study area, then it must have been worked by skilled specialists and artesans, part-time if not full-time. If the mine was not worked, then the copper artefacts must have been obtained by exchange.

Ethnohistorical evidence allows us to confirm some of the above inferences and shows the various ways in which the economy functioned. If Avila's informant is correct in stating that Yunga culture was homogeneous (op. cit., p.63), then I feel justified in using the economy of the Guancayo, who live at a similar altitude in the Chillón, as a model for the economy of the study area.

In the first place, the visita confirms the general agricultural self-sufficiency of the midvalley zones, for there are similar crops grown on the community lands of three different groups: the Guancayo, the Guaravni and the Macas. It indicates a fourfold land division into community lands, lands owned by the curaca, lands owned by the Inca and individual holdings (f.12, 10v, 14, 9, 10). The bulk of the community land was devoted to maize, this being the only plant for which yields are specified (f.12). However, coca, gourds and are also important, something that would not have been deduced from their scant presence in the Lurín excavations. In addition, a field was sown with plants that yielded a red dye for cloth. The interest of the plants mentioned for the community lands lies in the fact that although they were part of the daily diet, they were all needed in rituals. It is therefore likely that the produce of community lands was destined exclusively for the support of huacas and ritual houses.

Similar crops are mentioned for the curaca lands which were worked by the community (f.10v), but this time with the addition of common food plants, such as beans, yuca and sweet potato, that would be
be expected to form part of the daily diet. The inhabitants also stressed the abundance of fruit trees, particularly lúcuma and guava, fruits also represented in my excavations. From the questions and answers concerning coca (f.14), it is clear that the Indians had their own individual holdings and that many cultivated coca especially for the purpose of exchange, (f.14). This plant, therefore, is likely to have been their trade item for luxury goods.

The list of tribute collected by the Inca (f.9v and 10) shows that local manufactured goods were important. As well as the maize, cotton, coca and ají, plus beans and yuca for the aclla, there were three items of processed foods: dried guavas, dried crayfish and dried bird flesh, together with everyday clothing, cumbi cloth, vessels, sandals and wooden discs for earrings. Some of these items could be produced by most members of the community - the crayfish and guavas, for example. At the same time the Canta visitas suggest that the other items could be the work of part-time specialists seasonally engaged in manufacture. The visitadores found sixteen deserted villages which were used seasonally by certain members of all ayllus of the ethnic group (Rostworowski 1978, p.228). Half of these villages were for the purpose of cultivating lands in a different ecological zone, but others were for producing manufactured goods, possibly near the source of the raw material. Paron Marca was used for making cumbi cloth, Cancha-Cancha and Aragaco for making sandals, Achim for making pottery and Chacalla for trapping and presumably processing birds. It is likely that during the slack agricultural season the most skilled workers of each community came to the source of raw materials, carried out the manufacture at the temporary village and returned with the finished products, which they could have transported by llamas. In the study area the only source of raw materials
at which there could have been such a temporary village is the mine, but the inhabitants could well have used a similar system for acquiring domestic pottery. Such a system would explain the lack of kilns or firing areas there.

Possession of a prestigious trade item like coca could explain how individuals obtained the luxury goods mentioned. Ethnohistorical studies of the coast have indicated that the Quilca, who lived at the mouth of the Lurín, were full-time fishermen and chasquis (Rostworowski 1975, pp.217-218). They lived by bartering their fish for agricultural produce and other goods. It is also stated that their office as chasquis took them as far as Guayaquil, so that they could have been intermediaries in spondylus exchange. If the mine at Chaimayanca was not worked during the LH, then coca could have been traded for copper artefacts from the highlands.

The Canta visitas showed that this highland group held some control over different ecological zones, one temporary village being used by llama herders and others for agricultural produce not readily available to them. It is possible that the midvalley inhabitants did the same. Given the variety of crops that can be grown there, it was unnecessary for them to control other agricultural lands, but there might be a need for pasture rights. It is clear that the Guancayo possessed llamas, for each taxpayer was able to give a llama a year to the curaca (f.10v). Therefore, this Yunga community of 900 taxpayers must have possessed flocks of a considerable size, for they also had to keep another 300 llamas for the Inca (f.10). It is doubtful that such flocks could have been pastured entirely on midvalley monte, so that some transhumance between lomas and puna must have been practised. It is possible that highlanders were given pasture rights in the lomas during July and August, when highland pasture is poor, in exchange for the Yungas' right to pasture their flocks in the highlands. It is
also possible that they could have exchanged fishing rights for highland pasture rights.

The Guancayo visita indicates that reciprocity and the redistribution of food and goods played a role in the curaca-peasant relations. The able-bodied worked the curaca's fields and gave service in his household, in return for which they received food and clothes (f.13 and 14). Elderly peasants and single women worked his coca fields and again were fed and clothed. The fact that such labour was used for the lighter tasks shows that everyone contributed to the economy. In addition, the curaca was obliged to share with the peasants the llama that he received from each in tribute (f.10v). Similar relationships probably existed in the Lurín.

In conclusion, it is likely that all the traditional Andean mechanisms for the acquisition, production and circulation of food and goods were in force during the LH in the study area. These include simple exchange, part-time specialisation, reciprocity and access to different ecological zones.

IV Social and Political Organisation

Archaeological evidence for the former is scant. For example, it has been impossible to identify the Sisicaya curaca's dwelling, although his name is known. Likewise one cannot yet postulate any settlement hierarchy other than to state the obvious: that patio groups are indicative of more imposing settlements than mere room clusters. Information on status that would have been conveyed by grave goods has been lost because of looting. There may have been some status difference between burial in a single chamber on a house platform as opposed to a subterranean compartment in a room cluster,
but such a question cannot be answered until we know who was buried
where. Future excavation may solve some of these problems.

Ethnohistory continues to provide some additional information
that cannot be gleaned from settlement analysis at present. The
Guancayo visita shows that villages consisted of nuclear families
under a principal or mandón who did not have curaca status (f.9 10v).
Such status was only enjoyed by the head of an Inca administrative
division - the guaranga - or the head of a self-styled group, such as
the Guaravni or Macas, who were much smaller in numbers than the
Guancayo (f.10v). Even though the latter group was subdivided into
five pachacas, the pachaca heads were not accorded curaca status,
(f.10v). This status consisted of rights to labour on land, personal
service and women. The curaca was polygynous and succession went
to the most able relative, who could be the eldest son, but was usually
a brother (f. 5v).

In the Lurín, Avila (1966, p.87) gives the name of the curaca for
the early Colonial period who may have ruled for part of the LH. His
name was Diego Chauca Guaman and he was succeeded by his son Martín
the 1577 Retasa it is clear that he and the other guaranga curacas were
subject to Ninavilca, the chief curaca of Huarochirí and chief of all the
Yauyos. They probably gave Ninavilca some kind of tribute, as did
the Chacalla in the Chillón (Rostworowski, 1972, p.79).

Even if there were no historical references to the Inca conquest,
it is likely that this would have been inferred because of the distribution
of Cuzco-style pottery in the study area and outside it. Because of the
concentration of such pottery around the Sisicaya sites and at Pachacamac,
one might also deduce that there were administrative centres in those
sectors. The chronicles show that this was so and that the Inca built
a road up the Lurín, linking Pachacamac to Jauja. The reason for linking both centres is because the former had religious significance and the latter had strategic significance.18

The architecture of the Inca road has been discussed in Chapter Five. It was inferred to be the Inca one, because it was more imposing than the one on the south side and because it was in use until the early part of this century. Furthermore, it is reasonable for the Inca road to run along the north bank of the valley, since Pachacamac is also on the north bank. If the chief function of the road was to speed official communications between coast and highlands and to allow the rapid transport of tribute goods to the Jauja storehouses, there was no point in wasting time by crossing to the south bank. The road only does this at Antapucro, because the next tambo at Chorrillos is on the south bank and because the valley has narrowed considerably by this point.

The chronicles also show that the Inca built a tambo in the Sisicaya sector (Vaca de Castro 1908; Dávila Briceño 1965, pp.160-162; Guaman Poma 1966, vol. 3, pp.250-255; Vásquez de Espinosa 1969, p.316). There is little direct archaeological evidence for the tambo's location and size and one has to rely on the early chronicles and indirect archaeological evidence to deduce that it now lies beneath the modern village of Sisicaya. The earliest document on royal roads and tambos, written in 1543, refers to the tambos from Jauja to the coast as being:- Chupayco, Pariacaca, Huarochirí, Chondal and Natim, which was the last stop before Lima (Vaca de Castro, op. cit.). When this was written, Lima had been in existence for eight years and Pachacamac was no longer the ultimate destination of the road from Jauja.
If one considers the **tambo** in a reverse direction, the first **tambo** mentioned is at Natirn. The word is a Spanish corruption of el Ate, which is a place near Puruchuco to the southeast of Lima. From here the road run over the Munchay hills to the Lurín, where it joined the old road from Pachacamac. This rest stop at Ate is not mentioned in later chronicles. Chondal refers to Chontay, but since the Indians there belonged to the same **guaranga** as those of Sisicaya, (Rostworowski 1978, p.114) the name was used perhaps because the Chontay Indians did service at the **tambo**. It is unlikely to have been at Chontay and certainly not at site 84, because there is less Inca influence in that sector than in Sisicaya. Later writers, such as Dávila Briceño and Guaman Poma, make it clear that the **tambo** was in the Sisicaya sector where there is the greatest amount of Inca influence in ceramics and architecture. The **tambo** is believed to be situated beneath the modern village for the following reasons:

**Firstly**, in none of the LH sites at Sisicaya (see S.P. 1, 3A, 3B and 4) is there a group of buildings whose architecture would fit the requirements for, or the known architecture of, an Inca administrative centre. One would expect a large, enclosed, generally rectangular space in whose interior there are neatly arranged rooms, with their doors overlooking a central courtyard and with storehouses nearby (cf. Morris 1966; Menzel 1959, p.221).

**Secondly**, 1 km from Sisicaya at Canturía the Inca road unexpectedly comes down from the hill side and crosses the old irrigation ditch at site 158. It continues across cultivated land at which point it probably took the course the modern road now takes (S.M. 3). One might assume that it descends at this point in order to avoid the tricky crossing of the deep water channel at Canturía, but it was well within the technological capabilities of the Inca to
bridge the channel, particularly in view of the difficult terrain over which the road had just passed. These facts suggest that it came down to the valley floor for a specific reason.

Thirdly, there is a strong likelihood of the Incas' locating a tambo cum administrative centre away from local settlements with their orientation towards huaca and ancestor worship (Menzel, ibidem). There is also the desirability of the Incas' being close to the lands they are likely to have appropriated. The modern village of Sisicaya is equidistant from sites 164 and 137 where there is the greatest amount of Cuzco style pottery. These sites also imitate Cuzco shapes in local Brown Ware. Since each site is only 2 kms from Sisicaya, labour for building and servicing the tambo could easily have been drawn from them.

Fourthly, there is the fact that in 1862 Raimondi saw a smaller village at Sisicaya than exists nowadays. He noted that it was built on ancient ruins (1945, p.13).

Fifthly, there is the subsequent reducción of the 1580's, when all Indians in the area were reduced to the village that now bears the name of Sisicaya. Toledo specified that they should be kept well away from their former guacas and shrines and that their houses should be destroyed (Relaciones Geográfica de las Indias, vol.1, Appendix III, p.263). If the Indians were resettled in their former tambo, they would be in a better position to give the permanent labour service that the Spaniards required.
A location at the modern village of Sisicaya would account for the kind of influences we have seen in the pottery and architecture of the area, for the archaeology indicates no influx of strangers into local settlements, nor is there any documentary evidence for mitmaq. It would be here that Inca architects, potters, quipucamayoces and other bureaucrats, all probably full-time specialists, would have settled. Sisicaya is 40 kms from the coast, just over the six leagues that tambos were supposed to be from one another (Cobo 1964, book 12 p.129). It would be a hard day's journey for the official traveller, which is why there might have been a further rest stop at Manchay (Natim), as Vaca de Castro mentioned. To my knowledge there is no great quantity of Inca pottery in that zone, but the names of Tambo Inga and Tambo Viejo are suggestive.

There may have been other reasons for locating the tambo at Sisicaya. Such a location would have given the Inca administrators ready access to coca lands and a certain control of communications. The local routes to the interior have already been discussed. G.M. 1 and 2 show that Sisicaya is at the hub of this road network. This would be convenient for administrators who wished to send messages to, and to keep informed about, activities in neighbouring valleys.

The tambo was probably the only Inca settlement in the valley until Pachacamac. In this respect Inca settlement in the Lurín is similar to that in the Chillón, as described by Dillehay. This valley also has little Inca settlement in the mid and lower valley, because of the Inca desire to minimise potential conflict and to make use, as far as possible, of existing organisations.

It is not yet clear how the Huaycán Indians fitted into the Inca administrative system. The guaranga of Sisicaya probably did not
include them, as has been discussed, but neither is their any ethno-
historical evidence to include them with the four downvalley ayllus
or ethnic groups:- the Caringa, Manchay, Quilca and Pachacamac (Matos
Mar et al., 1961, p.19). Possibly they were considered a separate
group and divided into a few pachacas, as were the Macas and Guaravni
in the Chillón.

V  Religion

There is abundant information on Yauyos religion in Avila's texts,
although it is not certain how much is applicable to Yunga religion.
One particular episode is worth mentioning because it shows how huaca
worship can be related to the growth of the ritual houses, as analysed
in Chapter Five. This is the story of the discovery of the huaca
Llocllayhuancu. A woman working in her fields found an unusual stone.
She took it to an established huaca to find out who it was and why it
had come into her hands. The stone was revealed to be a huaca who
was the son of Pachacamac. Consequently the woman's house was con-
verted into a spacious residence for the new huaca; the courtyard was
enlarged and a special house prepared for the huaca (Avila 1966, chap.
20). All this shows how a ritual house might be created, for the
woman became the huaca's priestess and was probably eventually buried
there. Further pertinent information is given by Fabián de Ayala,
who commented that huacas and ancestors' bones were often buried in
people's own houses (Avila, op. cit., p.251). This indicates the
function of the pits in some domestic structures.
F) The Colonial and Republican Periods

Archaeology indicates a sparse settlement after the Spanish conquest, the decline in population being caused by wars and epidemics (Rowe 1946, p.184; Rostworowski 1977, p.85). The former probably accounts for the fact that Huaycán shows no trace of Colonial occupation. However the main Sisicaya sites continued to be occupied until the reducciones, since the tambo would have required servicing. From the few glazed sherds at old hillside shrines, such as 88 and 164, it is clear that huacas were still being worshipped. Between 1532 and 1580 a small church was built at site 136, probably to keep the Indians from idolatry, which testifies to the function of the ritual structures. During the 1580's the remaining population was reduced to San Francisco de Sisicaya, as previously stated. By 1759 the guaranía of Sisicaya had declined so much that it was combined with the Chaucarima of Lahuaytambo (Rostworowski 1978, p.112).

In the last century Raimondi gave a scornful description of the three villages in the study area (1945, pp.11-13). In Stiglich's geographical dictionary of 1922 the population figures are:- 164 for Huaycán, 88 for Chontay and 131 for Sisicaya. These figures have improved, for the 1969 census gives the population of the district of Antioquia as 1,511 persons (Anuario Estadístico del Perú 1969, p.246), which is about a quarter of what it must have been during the LH.
Notes to Chapter Six

1. See Zuidema (1977, p.266) for the view that invaders had to possess the body and house of the lord they conquered in order to claim title to his lands.

2. The Huarochirí tales also have a basis in fact because place names, ayllu and curaca names coincide with those given in 15th and 16th century visitas. The 1980 edition of these legends should also be consulted because it is the better edition of the original text and has a more accurate translation.

3. Menzel defines the Pachacamac style in her 1964 article (pp.51-61). For the power and influence of the centre see pp.71-73.

4. She bases this argument on information given in a letter by a priest, Fabián de Ayala. This letter is published as an appendix to the 1966 edition of Avila. In the letter Ayala refers to the bodies of all the Yauyos captains and leaders that he burnt. The most notable was "Tarayquiri", whose body was still in good condition, even though he had been dead for over 600 years. In view of the fact that Spaniards had difficulty in transcribing Quechua names, it is possible that "Tutayquiri" and "Tarayquiri" are one and the same person (Avila 1966, p.252).

5. Stiglich (1922) refers to the village of Sisicaya as formerly holding lands down to the "toma de Cieneguilla", which is the bocatoma below Panquilma, but he does not give the source of his information. It is possible that the Huycán Indians held some kind of dual allegiance to both the Pachacamac and the Sisicaya curacas.

6. Bueno (1978b) gives some archaeological information on this polity and Rostworowski (1972a) discusses the ethnohistorical evidence for its existence. A document issued by the Viceroy Amat in 1770 states that the lands of the Pachacamac Indians bordered on those of Chontay (Matos Mar et al., 1961, p.144).

7. Rostworowski (1972b, pp.56-57) discusses coastal/highland relationships between the various ethnic groups inhabiting the Chillón during the late periods.

8. By the time Vásquez de Espinosa was writing in 1622 (1969, para. 1309), the road from Lima to Jauja ran up the Rimac to Chichina and probably crossed to the Lurín by Yanacoto.

9. Such villages would be sites 164, 137, 136, 135, 28, 35, 57, 84, 96, 113 and 353.


11. When the Inca appropriated similar coca lands at Quivi in the Chillón, they put the local curaca and most of the inhabitants to death and sent mitmaga to work the lands (Rostworowski 1972b, pp.33-34).
12. These groups are not believed to have suffered heavy population losses in the early Colonial period, so as to distort the ratio of taxpayers to the total population (cf. Rowe 1946, p.185). In any case the number of taxpayers is likely to be underestimated, which would make the ratios even smaller. The Canta visita is published as Appendix II to Rostworowski 1978. The 1580 Chacalla figures come from Rostworowski 1972b, p.297. They are taken from a visita made under Toledo. The last three sets were published in 1622 by Vásquez de Espinosa (1969, para. 1342).

13. Cohen's estimates for the Rimac province are far too high, for he does not take into account the variety of crops grown, nor the fact that the maize could not all be destined for local consumption (Cohen 1973).

14. The Guancayo visita, published in Espinoza 1963, makes it clear that there were separate fields for maize, cotton, ají, coca, gourds, beans, yuca and sweet potato.

15. In the following paragraphs I have used the folio numbers for the references to the Guancayo visita.

16. For the use of these plants in rituals see Ávila 1966, pp.71 and 115 for maize; p.53 for gourds, which were used as serving dishes; p.67 for coca and p.159 for ají.

17. The existence of seasonally occupied villages near important resource areas would affect population estimates if these were based on house counts. I do not think there is any archaeological or ethnohistorical evidence to show that any lands in the study area were seasonally cultivated by outsiders, nor that there were any such villages to affect house counts, if this had been the method used to estimate population.

18. See Chapter One, note 1 for the importance of Pachacamac. With regard to the strategic significance of Jauja, it is interesting that all the coastal tribute given to the Incas was taken either there, or to one of the other big highland centres, such as Huánuco or Bombón, rather than left in coastal storehouses. See Rostworowski 1978, p.224.

19. Guaman Poma took this route in the early 17th century (1966, vol. 3, pp.272-273), probably before the route was changed via Chichima and Yanacoto (see note 8).

20. Rostworowski (1974, pp.114-115) identifies the ruins of site 84 as the tambo at Chontay mentioned by Vaca de Castro. However, since the Inca road is on the north bank, the tambo is unlikely to have been on the south bank. Furthermore, since there was a tambo at Sisicaya, there are unlikely to have been two tambos within 8 kms of one another.
Notes to Chapter Six (cont.)

21. This also disposes of Rostworowski's argument (ibidem) that site 164 was the tambo of Sisicaya.

22. Dillehay (1977, pp. 400-402) indicates that in the Chillón the lower sierra zone had more strategic importance for the Incas than the mid-valley zone. Unfortunately there is not yet enough information available about lower sierra settlements in the Lurín. These would be above Cruz de Laya, which was the limit of the 1966 survey.
CHAPTER SEVEN

CONCLUSIONS

The aims of the present study were to discover the effect of the Inca conquest on the Lurín valley and to depict the way of life of its inhabitants during the LH. It has also been necessary to discuss the LIP and earlier periods in order to place the Inca conquest in its proper perspective. The study has concentrated on ceramics, architecture and ethnohistory because these provide the most accessible information. The following conclusions are given with regard to each one of the above categories. The Inca conquest is discussed separately.

The Pre-Inca Culture

1. Ceramics

These have been used in two ways: firstly to date sites and secondly to make inferences about cultural, ethnic or political affiliations.

a) Dating

The ceramic material has provided the chief means of dating sites in the absence of radiocarbon or other precise methods of dating. Because the bulk of the ceramic material is plainware, it cannot be used to make fine temporal distinctions within the accepted time periods of Andean prehistory. However, it has been shown in Appendix I that the LH can be differentiated from the LIP, not only by the presence or absence of Cuzco style sherds, but also by the presence or absence of certain plainware
forms, notably Brown Ware form I. In heavily looted structures the pottery of both periods is mixed, but at many sites the area of domestic occupation has not been disturbed. Consequently an examination of the surface pottery of these areas will reveal how much of a site was occupied during any one of the above periods.

b) Cultural and Ethnic Affiliations

There are two kinds of local wares: Orange and Brown. Chart IV shows that there is more Orange Ware in the Huaycán sector, which is closer to the coast, than there is in the Sisicaya sector, which is closer to the highlands. The Brown Ware is found in reverse proportions. In surface collections made downvalley from Huaycán there are few Dark Brown Ware forms but abundant Orange Ware. Upvalley from Sisicaya there is little Orange Ware. Ethnographical data suggest that the Orange Ware styles originate in the coastal polity of Ichimay, whose centre was at Pachacamac, and the Brown Wares among the Yauyos, who invaded the eastern part of the study area in the early LIP. One need not interpret the presence of the Brown Wares as a sign that the Yauyos colonists established themselves in the Lurín, something that is not mentioned in early documents, but rather that the inhabitants of the study area were compelled to break their ties to the coast and to adopt some highland traits.

Further archaeological evidence for the connection of the Brown Wares with the Yauyos comes from the upper Chillón, where Dark Brown Ware forms, similar to those of the Lurín, are found at late sites from Checta to Quivi. This is an area in which the Chacalla Yauyos are known to have established themselves during the LH.
Similarities between shapes and paste of the Lurín and the Chillón are probably due to the utilisation of the same clay sources and the same centre for the manufacture of pottery by different ayllus within the Yauyos province. At present it is hypothesised that the pottery of the San Damián tributary of the Lurín may be similar to that of the study area. The fact that in the eighteenth century the remaining members of the guaranga of Sisicaya were amalgamated with the Chaucarima guaranga from that tributary indicates that there were long-standing ties between the two areas.


It is difficult to use the study area architecture to date sites, except when it shows obvious Inca features. Nevertheless certain traits in the architecture reinforce the ceramic evidence for the cultural ties of the inhabitants.

It has been shown that in the late period there are two kinds of architecture: domestic and ritual/administrative. The former was unchanged in the study area from the LIP to the LL. It consisted of dwelling platforms built on sloping areas and small house circles on the flat. The ritual architecture shows some changes between the two periods, but is basically a honeycomb of rooms and courtyards with an irregular perimeter. A variety of activities probably took place in these rooms and courtyards, before they were sealed up to accommodate burials. It has been hypothesised that each group of rooms is probably connected with a particular set of ancestors considered huacas, or else with a particular huaca worshipped by a community whose dwellings may be scattered over a wide area, or perhaps with the family of a powerful curaca. There were also separate burials in small above-ground
tombs on house platforms. It is not clear at present why there should have been two different burial locations: the individual tombs and the ritual structures. It is possible that some people, e.g. affinal relatives, may have been considered outsiders, with no ties to a huaca or group of ancestors.

The architecture of the Huaycán sector resembles Pachacamac more than the architecture of the Sisicaya sector does. Downvalley there are ramps, wall friezes, large patio groups and a more uniform construction. These traits can be seen at Pachacamac and other coastal sites. Upvalley in Sisicaya there are no ramps or wall friezes; courtyards are smaller and construction is less uniform with less plaster. On the other hand this sector has a paved courtyard on a ridge top, which is a highland architectural feature. Thus the architecture parallels the ceramics: the west end of the study area shows coastal ties and the east end highland ties. This differentiation between the two ends of the study area also occurs in the LH, when each sector adopted different Inca architectural features.

An examination of valley settlement has shown that most hill slopes and major quebradas were occupied from the EIP onwards. During the latter period the irrigation system was extended to its maximum, beyond the capacity of the ditches to irrigate land. It has also been suggested that the hilltop sites of that period had ritual structures rather than fortifications. By the end of the LIP these hill top shrines had been abandoned, but a new one had been built at site 164, probably as a result of the Yauyos conquest of the area.

During this period the people were settled in villages of varying size and the ritual structures were built on the floor and lower slopes of quebradas. This change in location of ritual structures coupled with the reduced irrigation system may indicate a shift from a wetter
to a drier climate. During the EIP abundant rainfall and the certainty of annual huaycos in the study area would have prevented any construction being carried out close to the quebrada water channel. At the same time the people would have been confident of ample water supplies from the river, which would have enabled them to expand the irrigation system. By the LIP and LH they were building out into the quebrada water channel, which indicates that they were not concerned about damage from huaycos. Nor during the LIP was there any attempt to cultivate as much land as during the EIP, which implies that there was not enough water in the river to do so.

3. Ethnohistory

This has been used to support the archaeological evidence and to give further information, where the latter is ambiguous.

a) The Economy

Excavations into grave refuse have indicated the range of plants cultivated in the study area during the late periods. Ethnohistory reveals which were important for tribute or religious purposes. These are maize, coca, ají and cotton. Ethnohistory has also shown the unsuspected importance of some produce and manufactured goods that were present in the archaeological record. These are guavas, birds, crayfish and sandals, which were given as tribute to the Incas during the LH. Data from visitas show that maize was not cultivated in every field. Therefore the population estimates based on the assumption that the whole cultivable area was devoted to maize are misleading.

Furthermore, there are items in the study area that cannot have been grown or procured there. These are fish, shellfish
(including spondylus), llamas, pottery clays, precious metals and probably salt. Ethnohistory has suggested some mechanisms by which such items might be obtained. For example grazing and fishing rights could have been exchanged, just as rights to pottery clays could have been exchanged for rights to produce from certain lands. Another possibility is that produce and raw materials were exchanged for goods manufactured or procured by full-time specialists. Ethnohistory has also indicated that specialised activities, such as pottery making, took place at certain seasons in settlements reserved especially for that purpose, although this cannot yet be verified archaeologically.

b) Social and Political Organisation

It is in these spheres that ethnohistory is able to give more information than archaeology. For example, it would be difficult to show that the Yauyos did not settle in the Sisicaya area, if this fact were not known from early documents. These have given an approximate date for the Yauyos conquest of the study area. This date of 1000 A.D. fits the ceramic evidence. The documents indicate that the Yauyos themselves did not colonise the study area (although they may have appropriated some land further upvalley) but rather that the inhabitants were obliged to worship and to bring offerings to highland huacas, the sons of Pariacaca. The inhabitants also gave tribute to the chief curaca of the Yauyos at Huarochirí. The division between the Yunga communities, seen in the archaeology, is further confirmed by the fact that the Sisicaya region became part of the Inca administered province of Yauyos, whereas Huaycán probably formed part of the province of Pachacamac or Ichimay. This political division has lasted through
the Colonial and Republican periods to the present day, when Sisicaya and Chontay are still part of the province of Huarochirí, whereas Huaycán is part of the province of Lima.

c) Religion

Although the tales collected by Avila deal mainly with the Checa, a group living around San Damián, they give abundant reference to the inhabitants of neighbouring areas. The stories confirm the importance of agricultural ritual, dancing and feasting in the lives of the peoples and also the power of the huacas, both local and regional. Archaeological evidence for the establishment of a huaca at site 164 in Sisicaya has already been noted. This huaca was probably a relative of the mountain Pariacaca. The legends show how huacas were created, how they were related to existing huacas and ancestors and how common houses were enlarged or modified to accommodate them, which has also been inferred from the architecture. The legends also give evidence for the importance of ancestor worship and continued offerings to the dead over many centuries, which has again been shown archaeologically. It would seem that new huacas with their attendant paraphanalia of rituals and feasts were imposed by the dominant Yauyos or the conquered Yungas as a form of subjugation.
The Inca Conquest

This affected ceramics, architecture and settlement, as has been shown in Chapters Five, Six and Appendix I. Documents reveal that it also affected the social and political organisation of the local populace which was obliged to provide labour for its new masters. The building of an official road afforded the inhabitants of the study area opportunities for increased contacts with people from other areas.

The factor that determined the amount of Inca influence on a particular community was the location of the tambo. Communities that did mit'a service at the tambo were more receptive to Inca influence than those that did not. Moreover, it is important to distinguish between Inca influence and Inca residence in an area, since Cuzco style sherds and the adoption of Inca architectural features do not in themselves prove that Inca personnel resided at a particular site. It is unlikely that the Inca would have resided anywhere in the study area, other than at the tambo. The lack of separate administrative buildings at sites in the study area confirms this hypothesis. At the same time the fact that local peasants imitated certain aspects of Inca culture suggests that this had a high prestige.

1. Ceramics

There were two centres of manufacture for Cuzco style pottery in the valley, one at Pachacamac and one around Sisicaya (see Appendix I). The bulk of the Cuzco style sherds comes from these centres or from sites close to them. In the intervening forty kilometres the LH sites yield only a handful of sherds in this style. The reason
for such a distribution must lie in the fact that those peasants close to the tambo did mit'a service there and thus had the opportunity to observe and work under Inca potters. In the study area the Cuzco style is restricted to the smaller ritual vessels rather than large storage aryballi. The fact that the sherds from these ritual vessels come from the ritual structures, rather than domestic habitation, also indicates that the vessels were a prestige item.

Furthermore the political divisions of the LIP between the coastal polity of Ichimay/Pachacamac and the highland Yauyos are reflected in the Cuzco-style pottery of the LH. The paste of Cuzco-style sherds from Huaycán resembles the paste at Pachacamac, whereas the paste of the Chontay Cuzco-style sherds resembles that found at Sisicaya and further upvalley.

The increased communications in the LH led to the spread of the coastal Orange Ware, with such features as the modelled snake and white designs on red. This ware is found upvalley in greater proportions than is Orange Ware during the LIP.

2. Architecture and Settlement

It has been shown that the Inca influence on study area architecture was limited to a few features, such as trapezoidal doors, large windows, partially recessed doors and gabled rooms, all of which were incorporated into the coastal style. Like the pottery, these features are found at sites close to the tambo, except in the case of site 57, which must have been the residence of an important huaca and/or curaca. It is interesting that there appears to be no further Inca influence on architecture between site 57 and Pachacamac. It has been suggested that the coastal ties of Huaycán would have meant
that the inhabitants did their mit'a service at Pachacamac. The highland ties of Chontay and Sisicaya would have resulted in their inhabitants doing mit'a service at Sisicaya. Consequently it is reasonable that the Huaycán builders might copy the large trapezoidal doors of the Manacuna at Pachacamac, whereas upvalley the builders would have copied the individual gabled rooms that probably comprised the tambo. It is unfortunate that we do not have the ground plan for the upvalley tambo which probably lies under the modern village of Sisicaya. However such a tambo would have possessed quarters for official travellers and Inca personnel, and limited storage facilities to support these and to keep goods on the way to the main highland storage centre of Jauja.

An examination of the settlement during the LI shows this to be sparser than during the LIP. This apparent lack of settlement is partly due to the fact that the LH only lasted one eighth of the time span of the previous period. Therefore some habitation sites are hard to recognise because they never built up much debris. On the other hand the LH occupation of the Sisicaya sector is predominantly on the north bank, at the back of quebradas behind the ritual structures. The Inca are likely to have concentrated the population there in order to ensure better service for the road and the tambo. Such re-settlement led to the abandonment of sites like 109 and 166.

In addition, four new sites have been identified: nos. 86, 104, 136 and 353, all of which are in the Chontay-Sisicaya sectors. These complexes are all coastal in conception and design. Each is in a location previously unoccupied and three are associated with irrigation ditches. The ditch at site 353 is part of the Antapucro ditch which predates the LH. The ditch at 136 is unusually short and cannot be associated with an earlier occupation, which may mean that the irrigation
system was being expanded. Such an expansion could have been instigated by the Inca in order to obtain more produce, probably coca, for the state or for religion. At site 104 it appears that a ditch and terraces of an earlier period were being rehabilitated. The generally rectangular layout of these sites and the superior construction may also be the result of contact with Inca builders and engineers.

3. Ethnohistory

This augments our knowledge of the Lurín during the LH. Mention has been made of the documentary evidence for the road and the tambo. Other inferences that can be made from the ethnohistorical data are that the Inca took over some lands for the state and for religion. This may be one of the reasons why more land appears to have been brought under cultivation during the LH: to make up for the loss of land to the Incas. The appropriated land was probably close to the tambo. The local populations would have been obliged to work this land and to carry the produce to the highland storage centres, as well as to service the road, bridge and tambo. Some people would have been obliged to work as chasquis or taken as personal servants. Certain women would probably have been sent to Pachacamac as acella. Early visitas also reveal the kind of manufactured goods and food that local labour was expected to produce for tribute. It is interesting that documents give no evidence for mitmaq in the study area, something also indicated by the archaeology. Possibly if the Inca were physically present in a region, then mitmaq were not necessary.

Under the Incas the Sisicaya and Chontay Indians were classified as a guaranga, which implies a total population of between 4000 and 6000 people. Such a population is larger than is found at present,
but well within the carrying capacity of the study area. The division of communities living at a similar altitude in other valleys shows that the guaramanga was further divided into pachacas, but these subdivisions may not have been made by the hundred taxpayers.

Finally, both documentary and archaeological evidence show why the tambo was established in its inferred location. The village of Sisicaya is slightly over a day's journey from the coast, which may well have necessitated a rest stop somewhere in Manchay, but the advantages of this location must have outweighed the disadvantages of distance from the coast. These advantages are the beneficial climate, the access to valued coca lands and the central position with regard to local intervalley routes. The Inca needed to be well informed in order to maintain their dominance over the local population. Since information could only be conveyed by foot and word of mouth, it was vital to control not only the official but also the local road systems. G.M. 1 and 2 show a small number of the many paths between the Lurín and the shore, and the Lurín and other central coast valleys. From Sisicaya chasquis could go north to the Rimac and Chillón and south to Chilca and Hala without going to the coast. Moreover the existence of Pachacamac at the mouth of the Lurín, and the need to keep a discreet watch over the huaca and its pronouncements and to convey these rapidly to the Inca, determined the building of the royal road up the Lurín, rather than the large adjacent Rimac valley. Ironically the presence of the road contributed to the speedy depopulation of the western end of the study area in the early Colonial period, for it would have been constantly traversed by armies whose soldiers noted the settlements to leave only the broken shell of what were once flourishing communities.