In 1941, William Darrow Strong, Gordon R. Willey and John M. Carbonell excavated an extensive series of 13 meter deep trench over the entire surface of the Temple of the Sun at Pachacamac. This excavation was not carried out using modern tactile methods, but rather in “digs” measuring 1 meter square and 1/2 meter deep. This excavation produced 23,916 ceramic artifacts. 44% of these were diagnostic. Strong and his colleagues divided these ceramics into three broad groups based on stylistic attributes: “Inca,” “well-known style generally based on consideration of ceramic materials from Cuzco or other highland sites presumably to be inca in origin,” and “styles associated with other specific centers.” These “Early Pachacamac” styles are better described today as “Lima” and “Nievera” (Ravines 2011; Arroyo 2011). The presence of these Early Pachacamac styles serves as a key in identifying potentially pre-Inca in origin or locally manufactured pottery at the Temple of the Sun. The presence of these styles suggests that the Temple of the Sun was not a mere ceremonial center but rather a large complex that was used for a variety of purposes including religious, administrative, and storage functions.

The Sample

Compositional Analysis of Pastes and Pigments from the Temple of the Sun, Pachacamac

Inca Pottery and Ritual Production

Strong and his colleagues observed that the Temple of the Sun at Pachacamac was used for a variety of purposes including religious, administrative, and storage functions. The presence of “Early Pachacamac” styles suggests that the Temple of the Sun was not a mere ceremonial center but rather a large complex that was used for a variety of purposes including religious, administrative, and storage functions.

Conclusions

The results of this research indicate that Inca pottery was produced in the area of Pachacamac. The compositional analysis of sherds from Group 2, comprised of both local and imperial styles, supports the idea of local production of Inca pottery. The raw materials used in local pottery manufacture were sufficient for the production of imperial forms and styles. This is consistent with the presence of these styles in Group 1, which is comprised exclusively of Imperial style pottery. The presence of these styles in Group 1 suggests that local production of Inca pottery was not limited to the Temple of the Sun but rather was a widespread phenomenon throughout the area of Pachacamac.

The figure shows a schematic profile of Cut 2 showing occurrence percentages. The calibrations were organized into groups, shown in the lower right corner of the poster, using multivariate statistical analysis. This was accomplished through calculating Euclidian distances and using principal components analysis. The Mahalanobis distances were calculated to evaluate group membership. Group 1 is comprised of sherd s from local Inca sites. This group contains all of the “Early Pachacamac” ceramics that were analyzed. Group 2 is comprised of sherd s from “Lima” and “Nievera” sites. Group 3 is comprised of sherd s from “Inca” and “Inca-associated” sites. The decorations and forms are consistent with storage vessels. The ceramics analyzed were divided by Group 1, Group 2, and Group 3. The group memberships were determined using Euclidian distances and principal components analysis. The Mahalanobis distances were calculated to evaluate group membership. Group 1 is comprised of sherd s from local Inca sites. This group contains all of the “Early Pachacamac” ceramics that were analyzed. Group 2 is comprised of sherd s from “Lima” and “Nievera” sites. Group 3 is comprised of sherd s from “Inca” and “Inca-associated” sites. The decorations and forms are consistent with storage vessels. The ceramics analyzed were divided by Group 1, Group 2, and Group 3. The group memberships were determined using Euclidian distances and principal components analysis. The Mahalanobis distances were calculated to evaluate group membership.

Pigment Compositional Analysis

The Neutron Activation Analysis (NAA) was performed on these ceramics at the Missouri University Research Reactor in Columbia, Missouri. Standard laboratory procedures for this analysis were followed (Perkins 1993). From each sample, all surfaces were removed and the sample was then homogenized. This homogenized sample was counted, and the specific counts for 25 elements were measured by a germanium detector. The data were calibrated using four standards (SM 463, SM 460, SM 466, and Ohio Red Clay). These calibrated data were organized into groups, shown in the figure in the center of the poster, using multivariate statistical analysis. This was accomplished through calculating Euclidian distances and using principal components analysis. The Mahalanobis distances were calculated to evaluate group membership. This homogenized sample was counted, and the specific counts for 25 elements were measured by a germanium detector. The data were calibrated using four standards (SM 463, SM 460, SM 466, and Ohio Red Clay). These calibrated data were organized into groups, shown in the figure in the center of the poster, using multivariate statistical analysis. This was accomplished through calculating Euclidian distances and using principal components analysis. The Mahalanobis distances were calculated to evaluate group membership.

Results

The first of the definitions of the term “Inca” is that the ceramics are identified as “Inca.” In contrast, Group 1, however, the ceramics from Group 1 are more limited. The decorations and forms are consistent with storage vessels. Serving vessels like plates and bowls are absent from this group. In particular, the Spring silk, which is black-on-white, is absent from Group 1. Some ceramic sherds assigned to Group 2 are found in the green field of the center and below.

The second definition of the term “Inca,” as used in Group 3, includes ceramics that are “Inca-associated.” In this case, the ceramics are “Inca-associated” with local traditions. There are several ceramic sherds assigned to Group 2 that are found in the green field. These ceramics are identified as “Inca-associated” with local traditions. There are several ceramic sherds assigned to Group 2 that are found in the green field. These ceramics are identified as “Inca-associated” with local traditions. There are several ceramic sherds assigned to Group 2 that are found in the green field. These ceramics are identified as “Inca-associated” with local traditions. There are several ceramic sherds assigned to Group 2 that are found in the green field. These ceramics are identified as “Inca-associated” with local traditions.