Chavín de Huántar, Peru

2012 Project Progress Report
Executive Summary

The principal work done at Chavín de Huántar by the Chavín Project in 2012 consisted of conservation and investigation in the monumental center, community development work, and planning and development of facilities and site management. Conservation work at the monumental center of Chavín had four primary concentrations:

First was the primary drainage system of Chavín - Rocas Canal - in which we extended the known length of the canal by nearly 100 m, remedied a number of collapses and instabilities, and prepared the canal for modern drainage use by careful removal of accumulated sediments and archaeological materials from its interior.

Second was the exploration, documentation, careful clearing through excavation, and conservation of a complex of canal systems in the northern esplanade of Building C, where we have found a high density of subterranean canals with both supply and drainage functions for ritual and practical use.

Third was the revealing and conservation of major external aspects of Building C, as it is prepared for tourism. This work included exploration and conservation of the major megalithic façade of the building, and the ritual corridors, surface canals, and other surface architecture on the esplanade immediately north of the major building.

Fourth was the continued work on the complex of galleries inside Building C, including Mirador and Loco, but we found a third and previously unexplored gallery we have named La Capilla for its proximity to an historic chapel/museum destroyed in 1945 by the landslide that highly altered the site.

Community development consisted of further development of facilities, training, production and commercialization of crafts related to the site, principally high quality replicas of original Chavin pottery, and work in shell and bone. A second focus of development was guide training and other educational interventions involving young trainees from Chavín, the regional capital of Huaraz and outlying communities.
2012 Project Progress

Planning
The master plan for Chavín advanced in the offices of Anna Maria Hoyle in the Ministry of Culture, and the project team had various consultations with her in support of the plan. Although there was an attempt by the Ministry to finish, publish and present the plan in 2012, in the end they were not successful due to time conflicts and various cultural crises.

The plan, however, is now complete and will be presented in May or June of 2013. As a result of our Project and the development of the plan, Chavín will apparently be given an independent funding status within the national budget of the central government, together with an administrative structure. If this should happen, probably it will run with an annual budget of something like $5 million, and our Project will have favored status within future actions at Chavín, and will be extensively consulted in planning processes.

Above: The 2012 project team.
Conservation

Conservation was carried out in canals, exterior architecture, and in the setting of the new stone art conservation lab in the National Museum of Chavin. There is some overlap in conservation techniques between these settings, but in general they are rather specific.

Above: Overall areas of conservation and excavation during the 2012 field season.
Conservation in canal settings is highly contingent on the state of preservation of the segment. Canal locations, directions and condition are almost completely unknown until exploration begins, and thus the entire process must await the clearing of the relevant segment. Once the segment is revealed, each segment is documented photographically, with total station coordinates, and combining the two is modeled with photogrammetry.

Above: Canal excavation, north esplanade.
Cracked ceiling beams are identified and classified as to degree of risk of collapse, and walls are inspected for buckling and other signs of collapse. Collapsed walls and cracked beams are remedied through various means, according to the situation. A medium-term solution is to use steel architectural risers, custom cut to size, and tensed into place with buffering seats of rubber or wood. In other situations the elements are disassembled, and reassembled in original but correctly structured position.

In the most extreme situations, architectural elements and materials are replaced, using similar classes of materials, which are distinguished from the original by either subtle raw material differences (granite instead of quartzite, for instance), direct marking of the new elements, or architectural disposition to avoid confusing original and replacement elements. Floor elements for canals are typically flagstones of slate or other plate-like materials; these may require re-seating, as pressures from lateral walls have often canted the plaques upward in the center.

Using these techniques we conserved approximately 150 linear meters of canals in 2012. We also discovered, between the main Rocas Canal and other canals, over 200 meters of canals that were completely unknown prior to this season, but which mostly remain to be excavated and conserved. Of particular importance were 16 meters of lower Rocas Canal underneath the North Flanking Mound, which cut in half the last significant blockage in Rocas intervening between the drainage intakes in the higher buildings of Chavín and the Mosna River. To clear through the last segment of blockage is a task that remains for 2013 and will represent a major effort, as the canal is quite unstable there and has an overburden of around seven meters of construction. Penetration from the surface is not very viable due to this great depth and because it would be a major issue to dismantle part of the major staircase which overlies part of this segment.

Above: Rocas Canal, beneath Building C, cut into bedrock.
Above: A newly discovered segment of the Lower Rocos Canal, beneath the North Flanking Mound.
Similarly to work in the canals, our surface conservation involved a wide variety of tasks. Most large scale among these was the clearing of a major percentage of the megalithic, monumental north façade wall of Building C, one of the most impressive constructions at Chavín. During 2012 and the previous year we were able to determine the stability of this 90-meter-long façade; only about half of it is capable of standing on its own.

We selected two primary areas capable of being fully revealed: the northwest corner, and the segment from dead center to approximately 20 meters to the east. In 2012 we fully cleared the 12 meters of the northwest corner and took major stabilization actions in that sector that involved reducing backwall pressure and direct stone overburden, along with the first steps to reposition a few, but huge, (3-6 ton) wall blocks whose original placement location is quite clear.

The central segment has a number of excavation areas along its length, which currently are excavated to different depths. By the end of the 2012 season, these segments had been united and now are ready to proceed downward through the remaining half of the layers to reveal the full height of the façade. Additionally, the northeast corner of the building was cleared of sediments in its upper courses, and it appears we can expose and conserve that segment as well. All segments of the façade have been evaluated for long-term stability, and we have renewed the clay mortar of the wall over the segments in which it was heavily eroded.
Above: The central area of excavation in the north façade of Building C.

Above: The megalithic wall uncovered in the north esplanade of Building C.
Major areas of ceremonial architecture were cleared and conserved immediately to the north of the central façade. For visitation these will be combined with the façade to present a unified vision of Chavín ceremonial contexts – the first to be revealed and put on display. Primary conservation work consisted in the careful distinguishing of a single component of ceremonial activity, the documentation of stratigraphically superior elements, and their careful removal. Stabilization of floors and walls ensued.

Above: A ceremonial corridor unearthed in the north esplanade of Building C.

Major conservation work occurred in the context of a new gallery that was discovered in Building C, the first new gallery to be discovered in approximately 50 years. This gallery, which we have named the Gallery of the Chapel after an historic chapel that stood directly above our find location until the landslide of 1945, was first encountered in constructions we uncovered in 2011, and in 2012 we opened the major passageways and chambers, excavating and conserving about 50% of the structure.

The gallery, however, had been badly damaged by looting carried out in historical times, perhaps the later 19th century. Gouging out of floor and subfloor deposits had occurred at the expense of wall stability, leaving walls in danger of collapse, and the beams above them virtually hanging in the air. Given the fairly megalithic nature of the gallery and its beams, the only way to achieve stability in the gallery was to de-roof all unstable beams; clean out the soft fill and rubble occupying the gallery and subfloor; carefully dismantle the weakest of the gallery walls; re-establish the nuclear core fill base with layered stones and clay; reassemble the stones from the original wall with replica mortar; and re-place the beams in their original locations.
Above: Lifting roof beams to stabilize the newly discovered Gallery of the Chapel.
The very limited space available to work within the gallery spaces, along with the weight of the stones (beams weighed up to four tons), required high levels of care and precaution to avoid risk of injury and to permit the relocating of elements in their original locations. With this special level of effort, and with further finishing work in 2013, the new gallery will be able to receive visitors in upcoming years.

Because of the intense rainy season Chavín experiences, it is not possible to leave most structures uncovered throughout the year. Thus, a major effort at the end of each season is to roof the structures that have been uncovered during the course of the season. Because at present the exposed areas are changing - we may choose to backfill some excavations, and uncover more areas during the upcoming season - the roofs to be installed are best considered temporary, and for that reason we are using mostly local materials and construction technique, which consists of eucalyptus pole supports and inclined roof frames, covered with cane and in turn overlain with geomembrane or other fairly durable, effectively impermeable covers.

The roof inclines are designed to drop their runoff beyond shallow berms that guarantee no backflow into the covered excavation. Mosquito netting surrounds the outermost base of the upright roof supports, catching water splash from runoff from rooftops. Many additional details of fine-tuning the roofs have to be custom-designed; usually the earliest of the rains gives a good chance to test the effectiveness of the roofs. In general these structures are relatively inexpensive in materials, costly in labor, and can last from 2-4 years before substantial repair is required; thus, they are not long-term solutions. We estimate that in total we have emplaced 20 roofs to date, ranging from 9m² to about 60m², with a total in the range of 250m².

Above: Constructing roofs over 2012 conserved areas.
Community Development

The main community development efforts continue the projects of the last five years: conservation training, craft production workshops and guide training.

Conservation training took a new turn in 2012 with the involvement of the Rietberg Museum of Zurich, Switzerland. The Rietberg carried out the first major international Chavín exhibition over the last three years, culminating in the exhibit itself, from November 2012 through March 2013. As one of the compensations to Peru, the museum obtained funds to sponsor a stone art conservation lab installation in the National Museum of Chavín. This was done under our project’s research permit, and our guidance and investment.

The program primarily consisted of modifications to the museum’s physical structure as well as procurement, transport and installation of the major stone moving, lifting and treatment equipment. In addition, the training of local conservation specialists was coordinated by the project team and carried out by Gregor Frehner, the top Swiss expert in this type of conservation.

Although not entirely complete, the conservation lab was able to prepare the stone art of Chavin for shipment to the Rietberg Museum for the major exhibition. In 2013 this program continues, and there is continuing investment by the Rietberg and the project itself to finish the lab installation and to bring the competence level of Chavín conservators to the point where they can carry out year-round work, not only on the stone art of the monument, but also to become a center of stone conservation work for the entire country of Peru.
A former Director of Archaeological Patrimony in the Ministry of Culture in 2012 designated Chavín as the National Laboratory of Stone Art Conservation, and to our knowledge that continues to be the case, although that officer was replaced and priorities within the Ministry have changed somewhat. Whatever might be the case, we believe a sustainable laboratory and staff should be basically operative by the end of 2013; where funds will come from to keep it going is unclear, but we continue to lobby for the Ministry to gradually introduce the laboratory’s function as a line item in their annual national budget. Four primary individuals from Chavín were involved in this effort.

We continued to carry out in-field conservation training for increasingly qualified Chavín workers. Our top Chavin conservator, Alejandro Espinosa, is now capable of directing site conservation, after working onsite in 2012 with Raul Zamalloa, one of Peru’s top archaeological/structural conservators. In 2013, Alejandro ‘Alicho’ will assume the directorship role in our conservation work, in constant consultation with our other project directors, and overall supervision of Julio Vargas, our primary conservation consultant. Six Chavin individuals received concentrated conservation training, and about 24 individuals overall were directly involved in learning structural conservation techniques.

Above: Alejandro Espinosa with his son, who is also working and being trained at the site.
Our local craft production workshops on ceramics and shell continued to train additional craftspeople and increase production in 2012. We produced approximately 15 shell trumpets, each of which is a major project in itself; all have been sold, for mostly in the range of $250-500; while this may not seem a huge amount of income, it represents a very good full-time local wage for 1-2 months. Similarly, our ceramic production of approximately 200 vessels represents about double the income stream of the shell trumpets, and thus the project is sustaining about the equivalent of 6 full time year-round wages; this is distributed over about twice that number of less than full-time artisans.

But this is only the production that is fully completed within our rented workshop; many artisans have now split off and are employing their skills in other contexts over which we have little supervision nor way of accounting for production. We regard this minor proliferation of craft situations as a very positive sign of success for our project. We continue to underwrite some craft production costs, providing both tools and facilities for craftspeople who remain associated with our project.

The project both initiated and participated in guide training programs that developed competence in guides from the local area and from Huaraz as well.
Some of these were two-day programs involving a number of lecturers on issues of patrimonial administration and development, but in all cases the core of the programs was updating guides on the state of knowledge about the monument of Chavín. The goal is to get updated information to the public, thereby increasing enthusiasm for site visitation and hopefully promoting greater touristic interest in the site.

Also to this end we published small, color-illustrated bulletins for both the 2011 and 2012 field seasons as part of the effort to provide sources of accurate information. Although the total effort in guide training is not large in relation to other aspects of the program, we think it is quite important and effective.

Partnerships
Our administrative office helped produce the two annual project bulletins mentioned above. Additionally, three books about Chavín, bearing the logo of GHF, were published in 2012, largely through the efforts of co-director Luis G. Lumbreras, and covered by supplementary funding from Asociacion Ancash and Antamina. Two of these are about the late caretaker of the monument, Marino Gonzalez; one of them is an overview of the spectrum of activities that Gonzalez undertook in the site; in many ways he was the site’s earliest conservator, although his methods of conservation might not meet today’s standards.

The other is a verbatim printing of one of Gonzalez’ most important, highly illustrated field notebooks from 1957-1958. Both are unique documents preserving very important information about a person whose activities had immense impact on the site, and about whom very little is otherwise known. The third book is a compilation of some of John Rick’s Spanish-language articles, combined with a summary annual report of the 2012 field season, heavily illustrated in color.

The project also worked closely with the development of the major Chavín exhibit at the Rietberg Museum of Zurich, the exhibition lasting from late November 2012 through mid-March of 2013. Also in conjunction with the Rietberg Museum, a major stone art conservation lab was initiated, physically and administratively within the National Museum of Chavin. The project provided logistic and administrative support for the installation of the lab, procurement of materials and equipment, and training of local conservators in the lab.
Above: One of the GHF-sponsored books on Chavin de Huantar published in 2012.
Human Impact

Reiman “Chino” Ramirez
Reiman “Chino” Ramirez is one of our most dedicated project members. He has been working with us for more than 10 years, and has gone from a high school student part-time worker to now being head of our local staff, employed with us on a 12-month basis. Chino was born in Chavín and was raised in the little nearby community of Querqos, a very poor hamlet with a population of a couple of hundred people. Reiman showed major aptitude and interest for archaeology and matters of heritage as well as extensive ability as a capable handyman. Raised in conditions where simple practical matters, handled with simple remedies make the difference between life and death (his father is a self-employed coal miner in the scattered veins around Chavín), he learned to use his clear thinking ability to dedicate himself to problem-solving. Combine that with a humorous, can-do attitude, and we found in him a great person to invest in with conservation training whenever the opportunity presented.

He took a break from working with the project for long enough to earn an Associate degree in tourism and found supplementary employment - before we could offer full-time income for him - in working as a tourist guide in the monument. With the growth of our project, we were quick to put him in a managerial field position, directing local workers and making the supply and task allocation decisions that only someone local can do well. One of his moves was to suggest that we hire his father at a juncture when we had to stabilize exceptionally difficult conservation contexts, for example, excavating under a later prehistoric structure we did not want to remove.

At the time we were unaware of his father’s small-scale shaft mining background, but we readily brought his father into the team in 2011, and he has proved to be an excellent practical engineer, although lacking his son’s more polished interface (Elias has relatively little schooling and knows little of the outside world). As of 2013, Chino has taken over the head implementation position in the project, being in charge of provisions, equipment, and local transport, as well as primary provisioner for field operations. He is a capable excavator and conservator, and capable of organizing complex field operations, and should be able to look forward to a long career in conservation archaeology.
About Global Heritage Fund

GHF’s mission is to save the Earth’s most significant and endangered cultural heritage sites in developing countries and regions through scientific excellence and community involvement. Founded in 2002 by Dr. Ian Hodder of Stanford University Archaeology Center and Jeff Morgan, GHF is the only non-profit international conservancy working exclusively in developing countries, where there are many threatened heritage sites but few financial and technical resources and little expertise to scientifically conserve them.

GHF goals include:
- Preserving structures and physical evidence of cultural heritage
- Advancing education about, and protection of, endangered heritage sites
- Advancing community involvement and benefits from preservation

Our work takes each selected heritage project through a process called *Preservation by Design®,* encompassing master planning, scientific conservation, community involvement and partnerships to provide enduring protection, management and financial support. GHF currently has 12 projects in 10 countries, including China, India, Guatemala, Colombia, Peru and Turkey.

While the nature and depth of each of our projects differ, one theme runs throughout: that the monuments, art and architecture of our ancestors can, if respected, bring lasting cultural, social and economic benefits to civil society. GHF’s mission is to help people realize the value of these assets in places where the sites are all too often neglected - or worse.

Holistic and effective preservation of cultural resources requires extreme care and planning to make preservation economically viable to local stakeholders. GHF goes beyond heritage conservation: We provide catalytic funding, site planning and technical training for local people to become capable stewards, giving them the opportunity to contribute more easily to their families and communities. GHF’s projects also have significance and benefits that surpass their primary conservation and development objectives as the monuments that we select are rich symbols of national identity and patrimony.

For more information on GHF’s mission and projects, see:

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