

BRIDGING THE PAST, PRESENT AND FUTURE

A Conservation Management Action Plan for
Malogonlong Bridge
Tayabas, Quezon Province
Philippines



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I thank Mayor Faustino “Dondi” Silang of Tayabas for introducing Malogonlong Bridge to me and, Arch. Reynaldo Inovero of the National Historical Institute (NHI) for his support. To Gener Abordo, Tayabas cultural officer, for the materials on Malogonlong.

And to Arch. Edsel Embalsado of NHI whose companionship in Sweden made this course all the more enjoyable, and whose initial work on the bridge I hope to continue.

Dedicated to the people of Tayabas...

Summary

Malogonlong Bridge is said to be one of the oldest and longest stone arched bridges found in the town of Tayabas, province of Quezon. Quezon is located in the island of Luzon, Philippines. The bridge is reported to have been built between the years 1840 and 1850 under the direction of the “Ministro del Pueblo,” Fray Antonio Mattheos, a Franciscan priest.

155 years after its construction, the bridge remains a testimony to the excellent stone arch bridge craftsmanship that was its foundation. It joins other such bridges in the world that are worthy of preservation as it provides us a window to the past when natural materials such as stone, molasses, eggs and blood resulted in a structure that lasted through the ages.

For many years, the roads going to and from the bridge have been left unpaved, such that the traffic did not reach high speeds that could threaten the bridge. Surrounded by coconut plantations, rice fields and natural landscapes, the bridge remained in its picturesque form for years.

The National Historical Institute (NHI), local NGOs and Tayabas’ ex-mayor (in whose term the bid for localizing management of the bridge began) and the current mayor all agree on the significance of Malogonlong bridge as an object of conservation.

One of the main challenges facing conservation of the bridge at present is that it cannot be funded by government alone. The NHI has limited resources for such projects and actually welcomed the initiative of the local government to take on the conservation of the bridge. NHI itself is in charge of the majority of heritage projects around the Philippines, and is doing this with a very limited budget and personnel. NHI’s position in this project is to support the local initiative, but to allow local stakeholders to take the lead.

This situation presents an opportunity for private sector initiative to lead the conservation efforts. The presence of many non-government organizations (NGOs) or civil-society organizations (CSOs) in the Philippines has enabled many projects and programs to move forward unimpeded by the changes in the political climate.

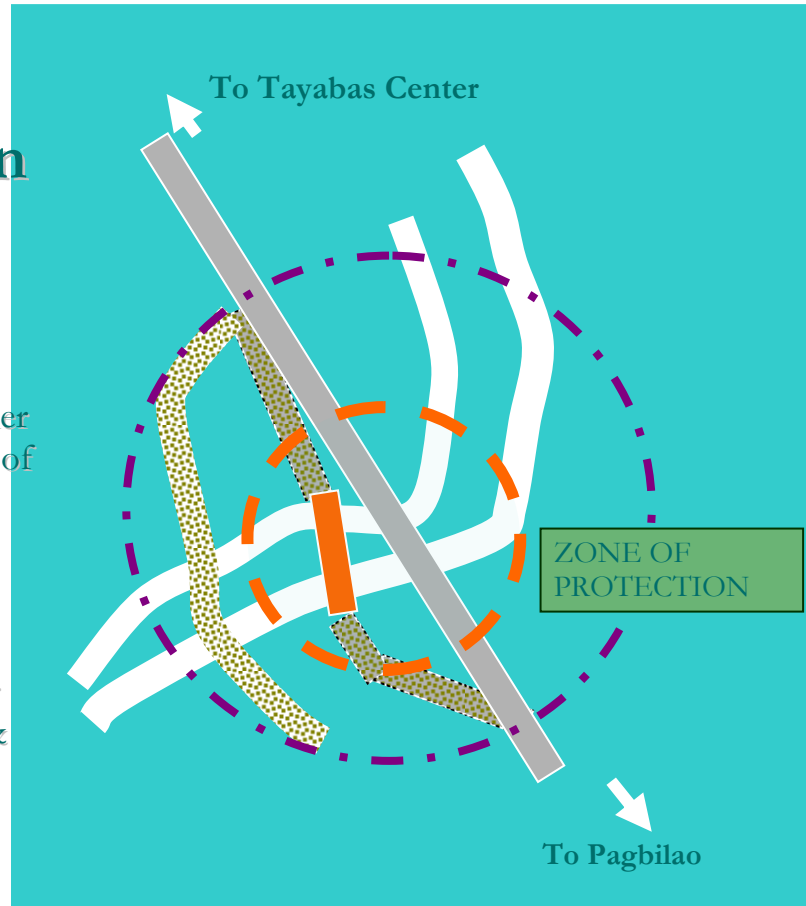
If the conservation of Malogonlong bridge is facilitated by a non-government organization or private sector individuals, the project’s survival is assured through time, regardless of political leadership.

This particular conservation project aims to demonstrate the potentials of a locally-initiated multi-stakeholder partnership to make such endeavors more sustainable. With dwindling resources for efforts in conservation, the cooperation of private, public, national and local governments as well as local populace will go a long way in the pursuit of conservation projects.

This conservation management plan seeks to provide a basis for initial discussion for stakeholders and an action plan that will help interested stakeholders to start the conservation of Malogonlong bridge for future generations.

Aims of Protection

- Prevent further deterioration of the bridge
- Protect area around it
- Showcase for educational & exhibition



Foreword

It all started with a photograph and a festival.

I found a picture of Malogonlong Bridge in a small hotel in 2004 in Tayabas, Quezon, a town in the Southern Tagalog region of Luzon, Philippines. Tayabas, located at the foot of Mt. Banahaw is known for its cool weather, its vodka-like coconut liquor called *lambanog* and a sweet cassava cake called *budin*. It is also known for its beautiful town church dedicated to St. Michael the Archangel.

Tayabas is flanked by the towns of Sariaya and Lucban. Together they form a triumvirate of festival towns on May 15, the feast of San Isidro Labrador, who is the patron saint of farmers in this predominantly Catholic country in Southeast Asia that is primarily Buddhist, Hindu and Muslim. *Pahiyas* is a harvest festival celebrated every May 15 in Lucban, northeast of Tayabas that many believe bear traces of pre-Hispanic rituals.

In Lucban and Sariaya, and to a certain extent in Tayabas, agricultural produce is used to decorate the houses along the path of a procession bearing the image of San Isidro Labrador. In Tayabas, men bear the image of San Isidro on their backs and passed through designated streets in the town. People staying in the houses along these streets shared their bounty by throwing “suman¹” and other agricultural produce from their balconies or windows.

¹ Sticky rice wrapped in coconut leaves shaped like tubes



Rice wafers and stalks decorate houses in Lucban’s Pahiyas. Crowds admire the creativity of home owners



Left: Hats, one of Lucban’s famous products, decorate this house.
Below: Children of Tayabas painting ceramic figures at Mayohan



Mayohan’s frenzy: Pilgrims catch bounty from participating households

It was during one such festival that I first saw the photo of the bridge. Its arches were dramatically silhouetted against the early morning sun, it was surrounded by lush vegetation and underneath it was a river strewn with rocks. I thought it was an old bridge in Europe until the hotel owner proudly exclaimed, “No, that bridge is here in Tayabas!”

Thinking that it was an old photograph, I asked where the “ruins” were and the hotel owner laughed. “No,” he said, “that is still standing, and you can take a look at it anytime.” He also shared that the bridge had been turned over to the local government to be maintained as a heritage site. The hotel owner was also the town’s ex-mayor.

Choosing the 155 year old bridge as an object of conservation

Almost a year later, I found myself applying for a scholarship at the Lund University's training programme on Conservation and Management of Historic Buildings. I had to choose an object of study and immediately, the image of the bridge came back to me.

Choosing a bridge as an object for conservation brought with it many opportunities to link my various interests – urban development, stakeholder participation, local governance and environment. Moreover, the bridge was in a place that was close to my heart. Tayabas, the former seat of government in the province of Quezon (formerly known as Tayabas), is for me, symbolic of my own Tagalog identity and the endurance of pre-Hispanic culture through adaptation.

Most heritage conservation seems to involve single buildings and vertical structures and I saw the bridge as part of a network of urban infrastructure that could be made more responsive to both the built and natural environment. Moreover, conserving the bridge is an opportunity for learning and providing models for heritage- and ecologically-sensitive urban development, as well as for local government - and private-led initiatives in conservation management.

Malagonlong bridge shares a history with all other similar bridges around the world. Through my mentors and co-participants in the course in Lund and in Phnom Penh, and through my research, I have found that all over the world, stone bridges are a source of fascination. They are worthy objects of conservation and provide many lessons to builders of today for their ability to withstand the test of time, with nothing more than simple materials from the earth and the principles that govern it.

Conserving a bridge, and potentially a network of bridges, is quite appropriate for these areas whose streets provide the stage for their well known festivals. The bridge links the Tagalogs of Southern Luzon to their heritage and indeed their past, present and future.

I. Objectives and Methodology

A. General

This conservation management plan is primarily meant to fulfill the requirements of the Advanced Training Programme on Conservation and Management of Historic Buildings (2005) of the Lund University, Sweden. But it is also envisioned as a proposal and discussion paper to implement a conservation project through the local Tayabas non-government organizations (NGOs) and the local historical society, the local government and the National Historical Institute (NHI), and other interested parties.

The primary aim of the conservation management plan is to save the bridge from further deterioration and come up with strategies to ensure that it will be there for future generations to enjoy.

B. Specific Objectives

The study has the following objectives:

1. To present an analysis of the bridge as an object of conservation (values, threats and possibilities)

2. To provide a basis and criteria for intervention and maintenance specifically:
 - a. Present conservation principles to guide management
 - b. Determine initial actions to initiate conservation of the bridge and the area surrounding towards sustainability
 - c. Put together strategies to showcase the bridge for educational and exhibition purposes

In the absence of maintenance plan guidelines for bridges, I wrote this document using the guidelines for gardens, parks and landscapes prepared by Mats Edström (2005). I have, however, incorporated some aspects of the guidelines for buildings to describe the other values of Malogonlong Bridge. The analysis undertaken is based on a visual survey and secondary sources. Safety conditions around the bridge during the time of study prevented further inspection underneath the structure.

I. Tayabas and Malogonlong Bridge: A Short History

A. Historical Context

The history of the 155 year old Malogonlong bridge is inextricably linked with the Spanish occupation of the Philippines. Three centuries of Spanish rule in the Philippines (1521-1898) is manifested by both tangible and intangible culture in the country. The country is predominantly Catholic, and its small towns resemble Spain’s former territories in Latin America more than its nearby neighbors in Southeast Asia.

The municipality of Tayabas used to be the cabecera (capital) of then Tayabas Province (now known as Quezon). Founded in 1578, Tayabas town was the Cabecera or capital of Tayabas from 1749 to 1946. It was considered the political, economic, and cultural centre of the province. After 1946, its name was changed to Quezon, after Manuel Luis Aragon Quezon, the President of the Philippine Commonwealth. The capital of Quezon was transferred to Lucena which is closer to the coast. Lucena was once a village or barangay of the town of Tayabas.

Malogonlong Bridge is said to be one of the oldest and longest bridges found in the town of Tayabas, province of Quezon, which is located in the island of Luzon, Philippines. The bridge, which is still passable to the present, was built in 1840-1850 under the direction of the “Ministro del Pueblo,” Fray Antonio Mateos, a Franciscan priest. ²

B. Building the Bridge

Malogonlong bridge was reported to have been started in 1840 by Spanish friars and finished in 1850, using 100,000 adobe blocks “laid patiently by Tayabasins (inhabitants of Tayabas) through forced labor.”

An inscription on top of the bridge³ indicates the time it was opened and under whose jurisdiction:

Siendo Gobernadorcillo
de esta Cabecera en el año de 1850
Don Julian S. Francisco

² More research needs to be done through the Franciscan order in the Philippines or in Spain

³ Redor, 1997

An account by a Spanish traveller (1878) describes the bridge and its surroundings as follows:

“The ravine of Maragoldon which is located about half a league from Tayabas is very beautiful because of moss and ferns which cover its rocks and large stones. At the descent of the clearing stands the magnificent bridge of that name, constructed over the deep abyss where abundant water of Dumaca River passes. Said construction which is the best work in the province of Tayabas is worthy of mention among the first bridges in the Philippines. This bridge was begun in 1841 during the time of the unfortunate governor Don Joaquin Ortega and was finished in 1850. The name of Father Antonio Matens is intimately connected with the story of its construction. The said priest lent so much knowledge, work and money in its construction. We recommend to those who may go to Tayabas to visit that gigantic work which is easy to inspect through the ramps for descent into the buttresses.”

C. Current Status

The beauty of the ravine described has now been diminished where a new modern bridge passes. A quarry near the new bridge has also eroded much of the landscape. The mosses and ferns described in the document are mostly gone, replaced by scraped soil surfaces. Fortunately, vegetation remains on both sides of the old bridge, although the total landscape may not be as dramatic as in the past. The ramps described by Guerra have been obscured by erosion and by encroachment by some structures

From Malogonlong bridge one can see ricefields and properties planted to coconut, river, a new bridge, and a quarry. There are about three houses in the area. The environment is generally pristine, and the water that runs through the river is clear and clean. There is not much development, but close by is a small camp of the Philippine army. New housing subdivisions, however are replacing picturesque rice fields nearby.

Until 2003-2004, Malogonlong bridge was still being used by regular traffic from Tayabas to Pagbilao town. This indicates that the bridge is still in very good condition. In fact, one of the conditions imposed by the Department of Public Works and Highways when it transferred authority to the local government was that the bridge be kept open in case the newer one was not passable.

From June to September 2004, through a series of correspondence between the local government of Tayabas and the Department of Public Works and Highways, Malogonlong Bridge was turned over to the Municipal Government of Tayabas, Quezon.

Under the Philippine Local Government Code of 1991, local government units (LGUs) are tasked with ensuring the preservation of local cultural heritage. This law empowered the Municipality of Tayabas to request the national government, specifically the Department of Public Works and Highways, to turn over the Malogonlong Bridge for administration, maintenance and preservation. The National Historical Institute (NHI) also declared the bridge a Historical Site.

One hundred (100) meters of the road approaching the bridge from Tayabas town proper and eighty six (86) meters from the opposite side have also been turned over by the DPWH Region 4-A.

The municipality of Tayabas had, through Municipal Ordinance Number 97-10, declared eleven (11) historical bridges for protection. (see Annex- 11 Stone Bridges of Tayabas) Malogonlong Bridge is counted among these bridges, and crosses the Dumacaa River. It connects the barangays (villages) of Mateuna and Lakawan, and the municipalities of Mauban and Pagbilao to Tayabas, Quezon.

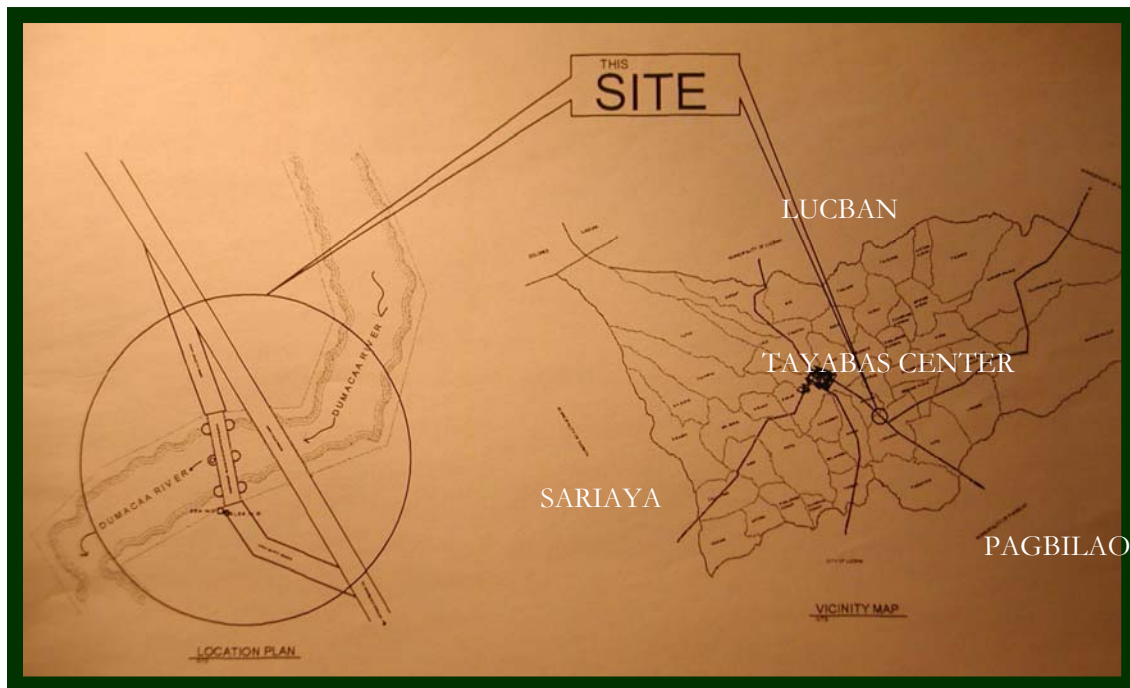
The bridge has survived in its original form, although repairs and strengthening may have been done on it through time. For example, the foundations seem to have been reinforced by concrete in recent years.

The bridge is an example of Spanish stone construction in the Philippines. In Luzon, the only other known bridges of the same type are in San Juan Metro Manila and of course the other bridges in Tayabas. Only Malogonlong may be the longest surviving bridge of its kind, at least in Luzon. The National Historical Institute and Augusto Villalon ⁴cites the bridges of outside Luzon which also need documentation.

III. Basic Data about property

A. Location

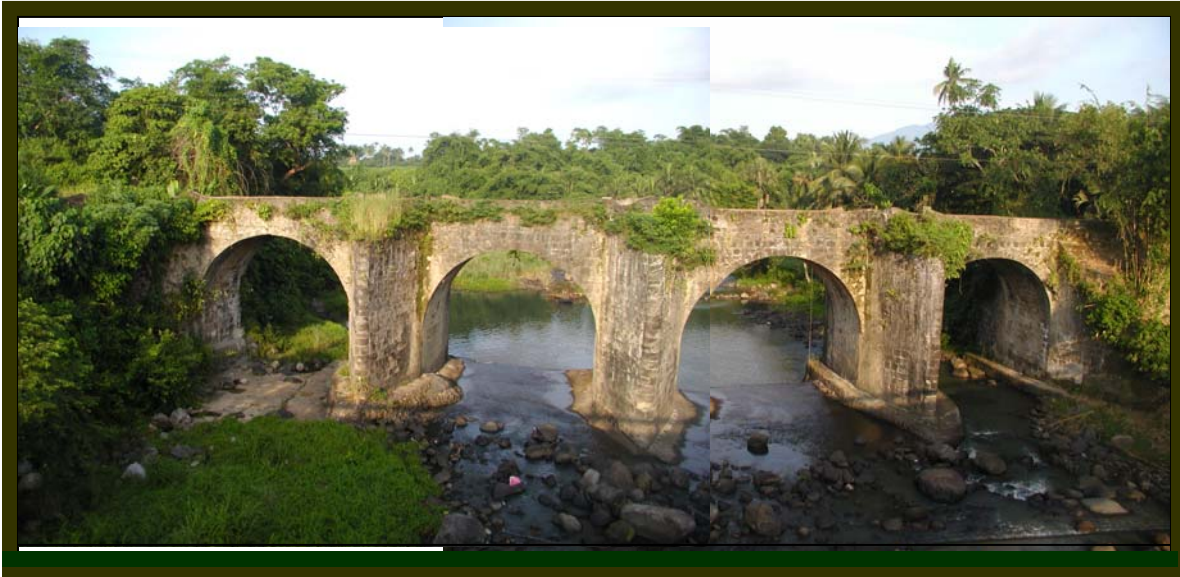
The bridge is located in Tayabas, Quezon Province. The municipality is approximately 150 km. Southeast of Manila, 14° 50' latitude. It is located east southeast of Mt. Banahaw, a natural conservation area straddling the provinces of Quezon and Laguna. The bridge crosses the Dumaca-a river and connects Tayabas to towns towards its Eastern side. Specifically it connects Barangay Mateuna and Barangay Lakawan, as well as the municipalities of Mauban, Pagbilao and Tayabas.



Tayabas is also located at the foothills of Mt. Banahaw, a 2,177 meter ASL mountain which spans the provinces of Laguna and Quezon. Tayabas, which is located about 500-1000 MASL is blessed with a cool temperature and verdant surroundings due to the many rivers and springs that run from the mountain to the towns below. It is a favourite destination for nature lovers, mountain climbers and pilgrims to the mountain, which is considered a mystical and holy mountain to believers.

⁴ “Bridges are Heritage, Too” by Augusto Villalon, July 24, 2006, Philippine Daily Inquirer.

B. Dimensions



Length: 445 feet or 135.636 meters

The first arch is 36 feet high (10.9728) and 36 feet wide; the second 33 feet high (10.0584) and wide, the fourth is 30 feet wide (9.1440) and the fifth is 18 feet wide (5.4864). The carriageway has an average width of 6 meters. The bridge is also characterized by six small “pockets” or balconies along the its sides, which affords pedestrians a place to stop and admire the views around it.

D. Ownership

The bridge belongs to the government, and has been turned over by the Department of Public Works and Highways to the local government of Tayabas for maintenance. The areas around it are privately owned. The landowners around the bridge are as follows:

- North East side Guanzon related to the Alandy family
- North West side Abrigo family
- South East side Laguna Properties

II. Analysis (Values, Threats & Issues)

The new bridge was built parallel to the old one, and the DPWH turned over the old bridge to the local government of Tayabas for maintenance and use. The Malagonlong Bridge was closed to vehicular traffic in 2004, after the new bridge across Dumacaa river was completed.

This closure allows the use of the bridge (and its two side approaches of 100 and 80 meters respectively) as a park and a site for preserving and enriching cultural heritage, with the goal of boosting local tourism, as it was declared in the memorandum of agreement.

According to the memorandum of agreement between the DPWH and Tayabas, bridge and, the municipal government of Tayabas, Quezon has the following responsibilities:

- To maintain, protect and preserve Malogonlong Bridge, including its approaches
- To use the said bridge only for tourism purposes
- To allow the use of the old bridge as a detour bridge in case the newly constructed bridge becomes impassable due to force majeure or other acts beyond the control of DPWH

A. Values



From right counterclockwise: buttresses shaped like boats, foundations that can serve as platforms; and two parallel bridges offer new viewing possibilities.

1. Bridges As Heritage

The bridge was used for vehicular traffic until quite recently (2003), and can be considered an engineering feat that has withstood the test of time. More than its structural importance, it is also a graceful example of an arched stone bridge, set in a beautiful setting typical of the rivers of Tayabas town.

Bridge-building of the scale and material that was used in Puente de Malogonlong was introduced by the Spanish. Other similar bridges can be found in Spain and elsewhere in Europe. But as in other structures built in the Philippines, much of the work and craftsmanship were done by local labour, which indicates local abilities in such handiwork.

2. An Excellent Example of Stone Arch Bridge Construction

According to the National Historical Institute (2005), stone building in the Philippines was introduced by the Jesuit Fr. Antonio Sedeño in the 1580s. Over time, more people became involved in stone building, especially the Chinese. More people became skilled stonecutters, lime burners and masons.

Today, stone and masonry structures can be found throughout the Philippines, most of them dating back to the Spanish colonial period. Churches, convents, houses, fortifications, schools, tribunals and bridges count among the stone structures of the country. Accordingly, they display not only traditional art and techniques of stone and masonry craft, but also unique architectural features and cultural details.⁵

⁵ NHI, page 2, 2005

Stones commonly found or used in the Philippines include volcanic tuff, (locally called “adobe”) and limestone. River stones were also used together with other stone materials. Malogonlong bridge uses both volcanic tuff and river stones.

The materials used for stone building, which include molasses, blood and eggs and other protein-based material, are said to form a calcified bond that strengthens stone construction through time. The arch as a building form is excellent for withstanding loads from above and directs stresses from stone to stone.

3. Clues and Links to Pre-Hispanic Tradition?

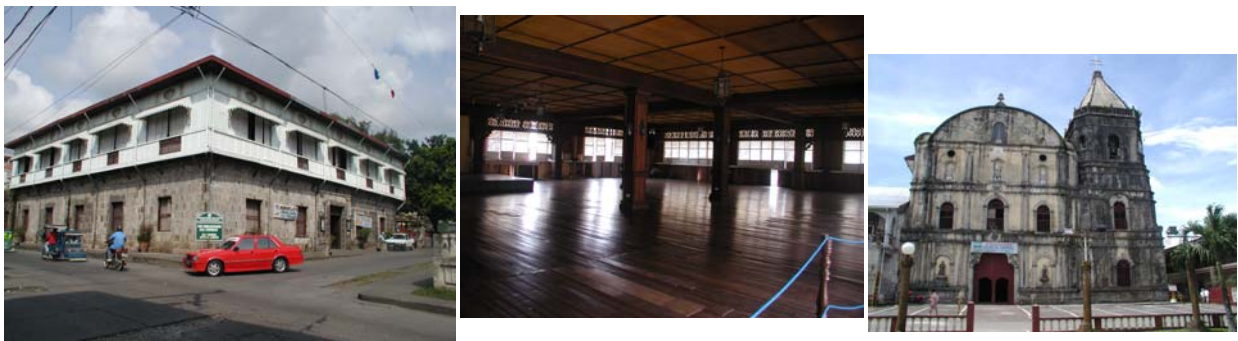
There are hypotheses⁶ that the ability for stonework existed in pre-Hispanic times, and some ongoing local research points to the probability of Chinese influences prevalent in a lot of construction work in the surrounding area. There is still a need for more documentation on stone work in Tayabas. Stone work in rice terracing in Tayabas is similar to that in Ifugao, Northern Philippines (and indeed elsewhere in Asia) but the connection still needs to be established and documented.

The stone craftsmanship of the bridges indicates a stone masonry heritage that also manifests itself in the church of Tayabas, the rice terraces and other stone works found in excavations around the town.⁷

4. Urban Context: Tayabas as one of the oldest and most important historical settlements in Southern Tagalog Region

Tayabas itself was established in 1578 by Franciscan Friars Juan de Placencia and Diego de Oropesa. From 1779 to 1910, Tayabas town was the capital of Tayabas Province, now known as Quezon province. It is an important province in Southern Tagalog region, and has an important relationship to what is known as the mystical mountain, Banahaw. The mountain is the site of what can be considered significant cultural and religious practices that are believed to pre-date Christianity, but have incorporated Christian motifs and icons in the current day.

Mt. Banahaw and its surroundings are also important symbols for Philippine environment and of Tagalog culture and identity. The communities living around Mt. Banahaw combine modern day environmentalism and advocacy with a “spirituality” that is connected to a respect for the mountain as a “bearer” of wisdom and inspiration, in addition to being home to diverse flora and fauna.



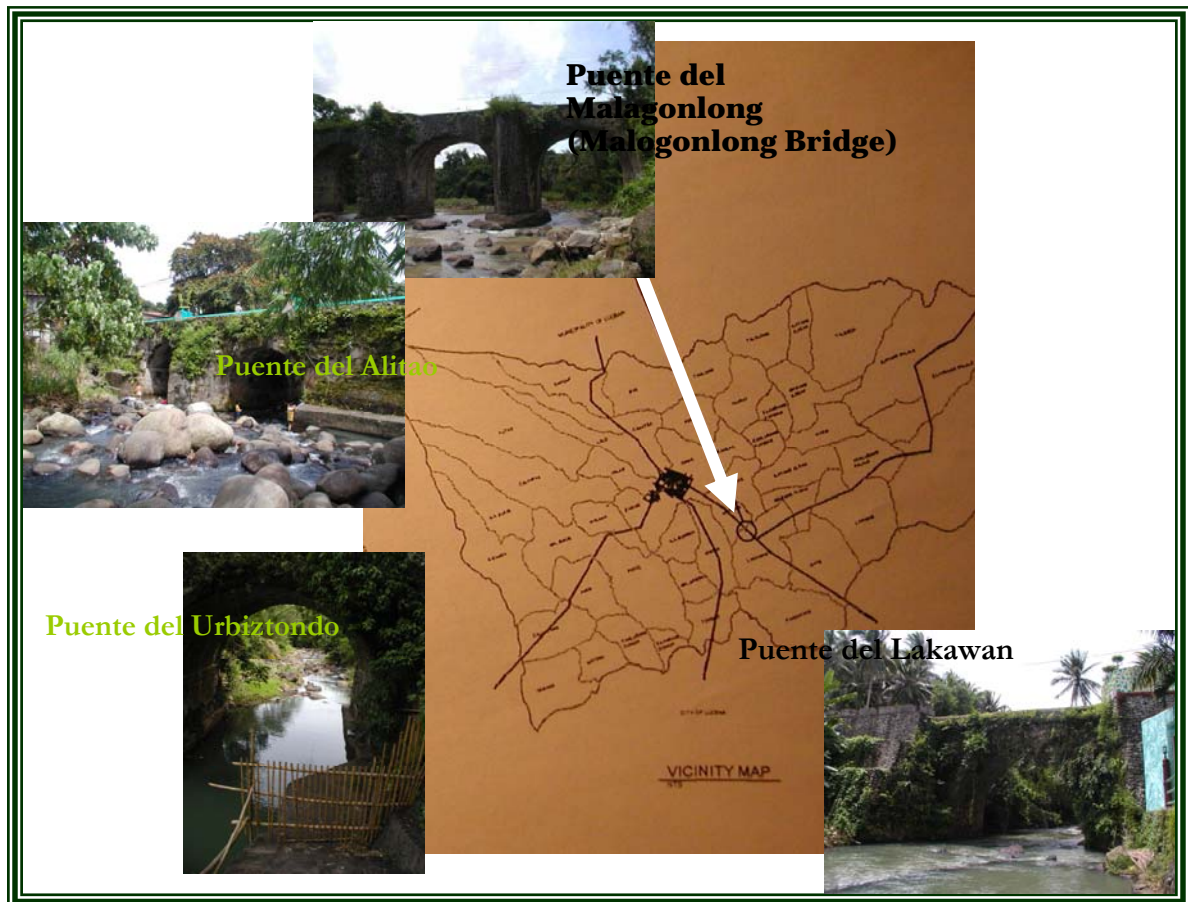
⁶ Based on discussions with Faustino Silang and Jun Redor’s exhibition of Tayabas stone works at the Casa de Comunidad (Community House) of Tayabas

⁷ There is also evidence of a highly developed stone craftsmanship in the water distribution system of a neighboring town, Lucban, which distributes water from the springs of Mt. Banahaw to the poblacion or city center of Lucban. A similar system is believed to have existed in Tayabas, but may have been eradicated by subsequent road improvement projects in the town.

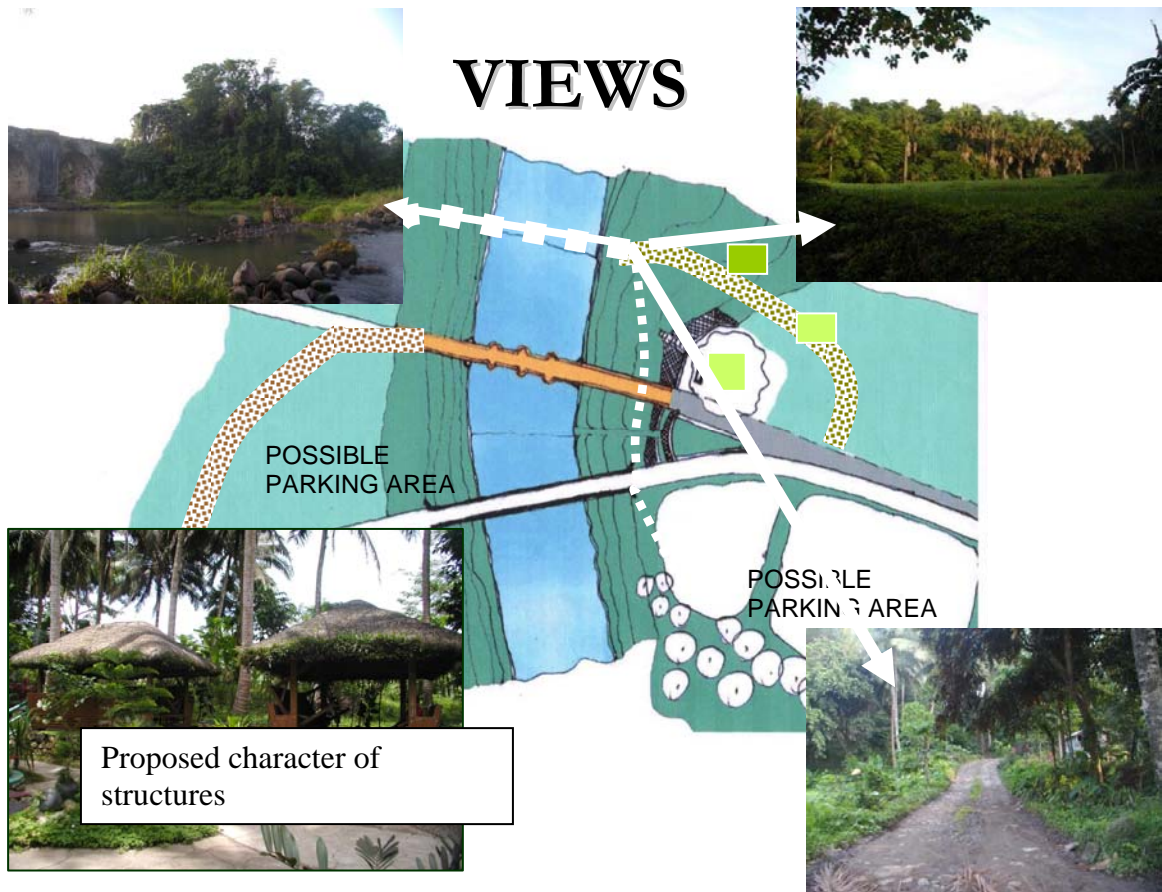
The story of Malagonlong bridge also offers an interesting insight to urban development and of the importance of infrastructure as heritage. It is important to note that it is not only single architectural structures that can be considered heritage, but also the networks of roads and bridges that connect them. The aesthetic importance of Malagonlong bridge cannot be underemphasized – beyond its functional character, it also is an engineering feat of great beauty. It is proof that urban development decisions can incorporate aesthetic values.

5. Other Potentials for Urban Heritage Tourism: Malagonlong Bridge and Tayabas’ 11 stone bridges⁸

Malagonlong Bridge is proudly claimed by the citizens of Tayabas as an important heritage object that reminds them of the history and uniqueness of their town. The bridge is one of eleven (11) stone masonry bridges in the municipality that reminds them of the importance of Tayabas as a former capital of the province.



⁸ Please see Annex – Tayabas’ Eleven Stone Bridges by Jun Redor



III. Landscape and natural values



The bridge is surrounded by views of rice fields and the cool lush tropical greenery typical of the foot of Mt. Banahaw. Mountain springs are the source of water for the town of Tayabas and its surrounding areas, and the communities have developed technologies for tapping water from the mountain to irrigate their fields and for household use. Water is therefore an important resource for the surrounding municipalities and

specially Tayabas, holds symbolic value.



d. Experience value

The bridge is located in a wonderful setting that will provide delight to the senses and allow for enjoyment of scenery and construction methodology. The river is symbolic for the Tayabasins, and this will be highlighted with the bridge conservation.

During initial discussions with the local government, it was discussed that a restaurant could be developed on top of the bridge, although this may be re-discussed, given the conditions given by DPWH which requires it to be open during emergencies.

B. Threats

1. Incompatible Uses

Incompatible uses such as the quarry near the new bridge, and a piggery near the old one threatens the bridge. Erosion upstream from the bridge affects the quality of water that flows through the Dumacaa rivers is also considered a threat. High speed traffic on the new bridge may also endanger Malogonlong bridge. (Other threats can be gathered through a workshop with community members and stakeholders.)

2. Weathering and Natural Threats

The bridge is quite sound structurally, because it has been used as a bridge until recently, however, it is the growth of trees and vegetation that seem to threaten it. Vegetal growth, erosion and root cracking also threaten the structure. Soil accumulation has already covered much of the surface of the bridge carriageway.

Previous interventions need to be studied if they have any long term effects on the bridge. The use of concrete over natural stone may have some effects. Plastering may also have affected the stones on the bridge.

Soil has also accumulated on top of the bridge and this needs cleaning up to reveal the paving on the carriageway.

C. Maintenance Issues

1. Signage and presentation

The NHI earlier prepared a maintenance plan that was presented to Mayor Severina Nadres. It identified the need to clean up the triangle between the two bridges. This can be made into a landscaped area with signage and information about the bridge. (See annex for NHI's initial proposal)

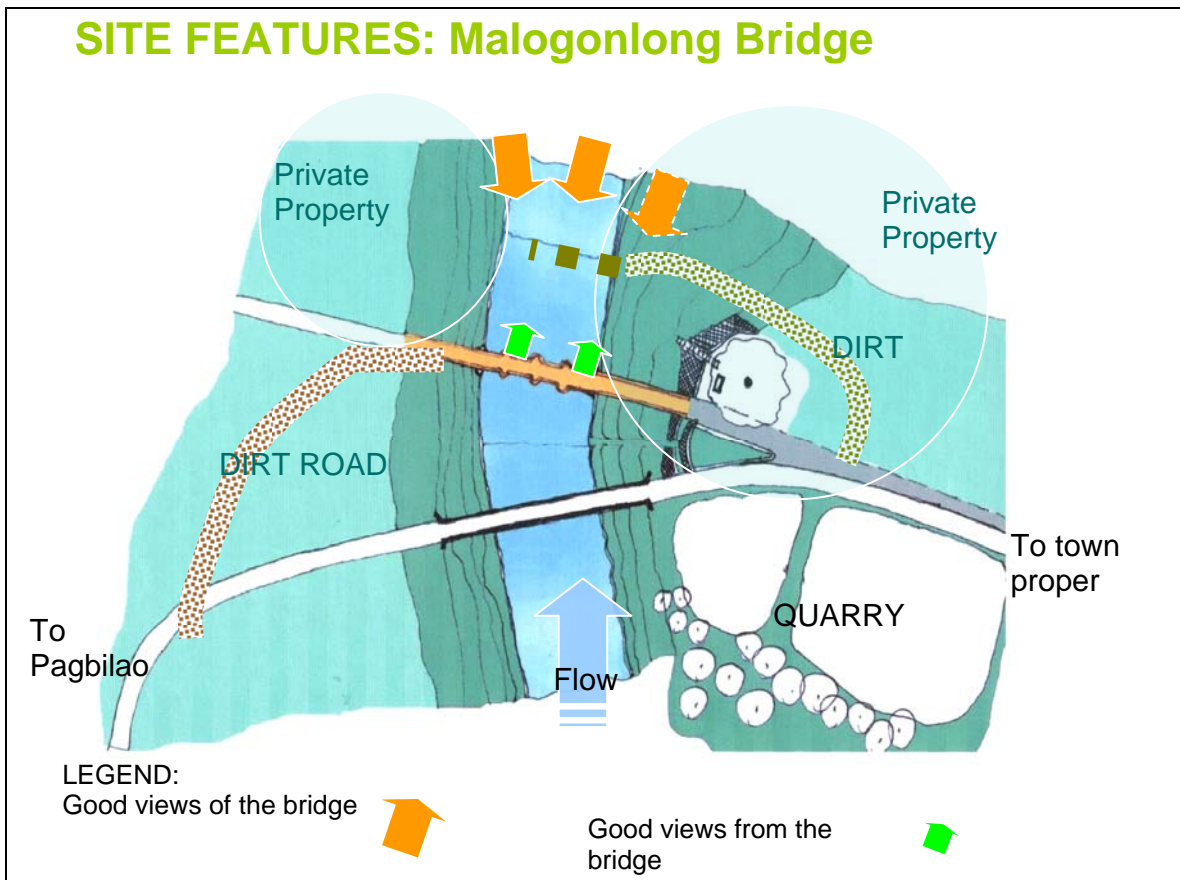
2. Legal issues

There are no major legal issues regarding the bridge itself, as it has been turned over to the local government by the central government's Department of Public Works and Highways. On the other hand, because the conservation value of the bridge depends on the properties that surround it, the project holder will have to make legal arrangements with the property owners surrounding the bridge. It may be necessary to buy, lease or prepare partnership agreements with the property owners around the bridge.

V. Potentials, Conservation Goals & Strategies

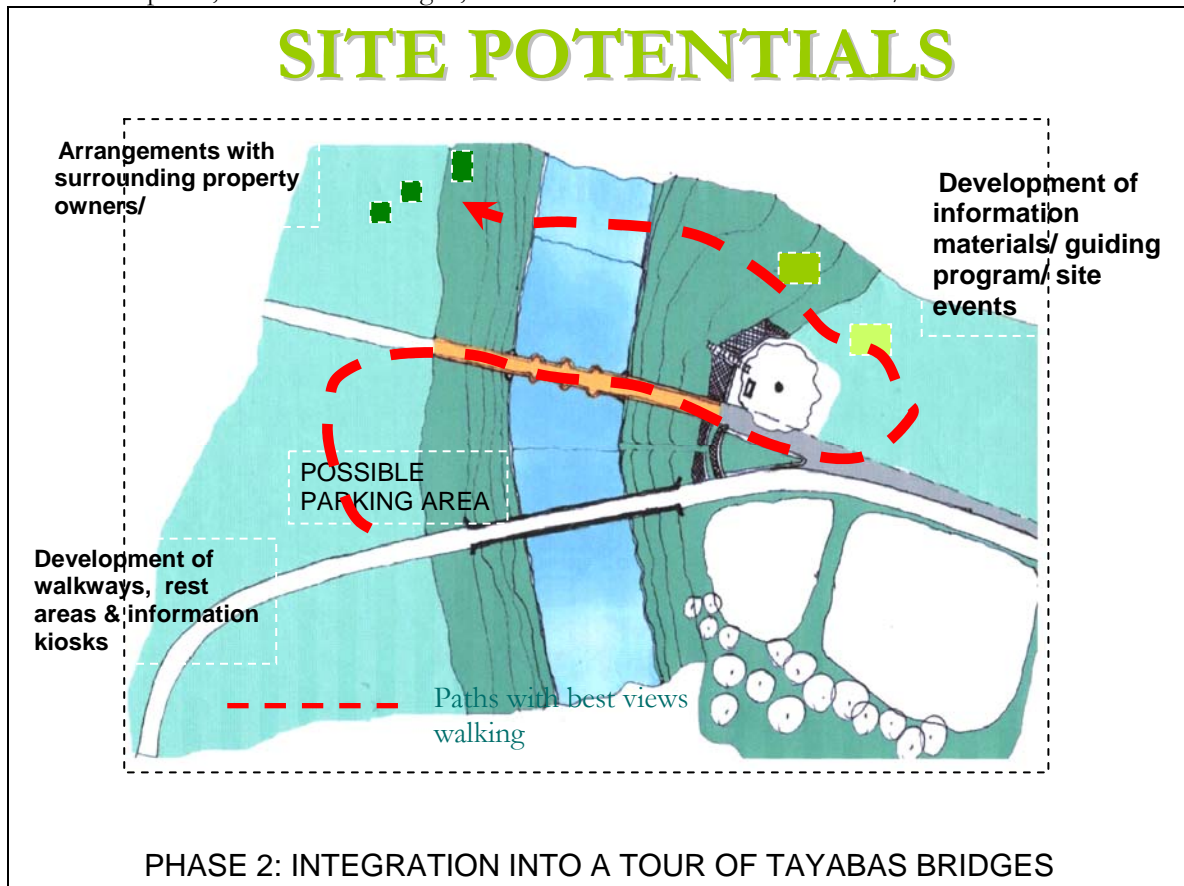
A. Site Features and Potentials

The following diagram shows the features of the site that are worth exploring. As mentioned, the value of the bridge also lies in the environment that surrounds it. Viewing the bridge from below is also an aesthetic experience, while viewing the surrounding area is also a reminder of the beauty of Tayabas' landscape. These two experiences must be maintained through time.



Base illustration from National Historical Institute, by Arch. Edsel Embalsado, 2005

The following diagram shows some of the initial work that can be done on the site to start off a conservation program that will maintain the bridge through time. These initial activities involve minimal expense, and involve dialogue, available materials and local initiative/resources.



B. Conservation Principles and Goals

The primary principles for the conservation project are as follows

1. **Participation and local ownership, multi-stakeholder approach:** The bridge will be protected if there is local ownership and participation. Already, many of the town's residents know about the bridge, and they only need more information about what they can contribute or how the conservation of the bridge can enhance their lives. A multi-stakeholder approach will ensure that resources are available from various sectors – government, business, academe and civil society.
2. **The bridge AND its environment are the objects of conservation:** The bridge and its environment are one whole entity, therefore any future actions will be meant to preserve both the bridge and the qualities of its environment. This means that the primary criteria for any structures or activities are to preserve the dynamic of the interaction of the object and the ecology.

Goals of the conservation project fall under the principles of protection and development. Conservation will prevent further degradation of the bridge and will enable the town of the Tayabas to use such a resource for demonstrating and instructing locals and outsiders on the history of Tayabas and its heritage.

At the moment, the best use seems to be to develop the area around Malogonlong bridge into a natural park, and develop interpretation areas and facilities for it to function as such.

Fortunately, all stakeholders see the bridge and its surrounding area as a park and a tourist attraction, providing facilities for performances, street cafes and promenades. The then mayor saw its potential as a destination for locals and as an outdoor museum with facilities for interpretation. Structures and shelter for related artefacts in the surrounding areas can also provide more information not only on Malogonlong bridge but also other bridges in Tayabas town.

There is a clause in the agreement with DPWH that it can be used in emergencies, for example if circumstances prevent the use of the new bridge. Therefore, no structures may be built on top of the old bridge.

On the other hand, it would be possible to undertake a larger park development project around the area to ensure sustainability and to generate funds for the bridge's maintenance. A workshop with the community and stakeholders has to be undertaken to finalize the aims and usage of the bridge and surrounding areas.

3. Basic components of the Bridge Conservation Park

The components of such a park can include the following:

- Park and footpaths for nature walks
- Botanical gardens (of indigenous plants)
- Exhibit areas, especially regarding Banahaw & Tayabas natural history
- Information structures
- Picnic area or area for presentations/concerts/outdoor events
- Information boards on strategic parts of the park area with the following themes
 - Water (river, usage, sources, Mt. Banahaw as a critical watershed)
 - Stone (qualities, usage, sources, other similar examples)
 - Bridge building
 - Flora and fauna of the area

Accessibility and Facilities

Facilities to be developed are as follows:

- Two parking areas can be developed on two sides of the bridge
- walkways to allow use by disabled and the elderly
- toilet and sanitation facilities
- electricity, lighting and water sources

IV. Resources and Implementation

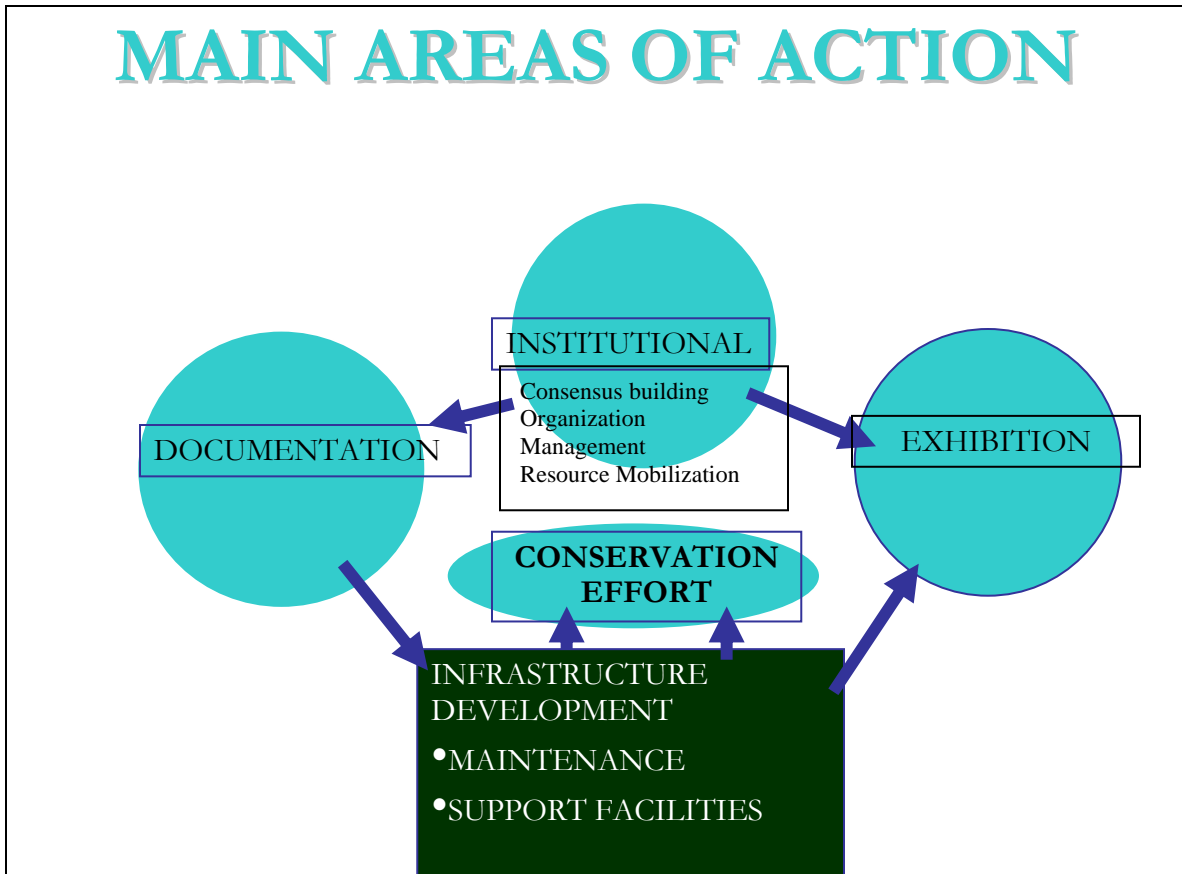
A foundation or similar structure may be set up to plan, raise funds, implement and manage the conservation of Malogonlong bridge. It is possible to combine resources from national, local government as well as private funds to fund the conservation project over time

1. Main Areas of Action for Conservation

The main areas of action for conservation are institutional development, documentation and research, maintenance of infrastructure (immediate and long-term) and exhibition. These areas are further discussed as follows:

a. Institutional Development (including resource mobilization)

- What has been done?
 - Bridge declared a heritage site by the National Historical Institute (NHI)
 - Object turned over by the Department of Public Works and Highways (DPWH) to the Local Government
 - Discussions with interested individuals and NGOs in Tayabas for possibility of leading the conservation effort
- What needs to be done?
 - Local institutional structure for planning, implementation and maintenance (private-public partnership, NGO-led)
- Organize core of local foundation or consortium to manage bridge, establish policy and raise funds for maintaining the bridge and the site
- Immediate tasks:
 - Representations with owners of properties in the immediate vicinity and establish venues for participatory planning
 - Propose additional legislation to protect area around the bridge (up to a one kilometer radius)
 - Establish a project management unit for maintaining the bridge, to continue documentation, plan exhibitions



b. Documentation and Research

What has been done?

- Preliminary data gathering on the bridge
- Preliminary inventory of current issues

What needs to be done

- Historical records (Franciscan missionaries, Philippines & Spain) – builder/historical context
- Complete structural documentation: technique, process, material, interventions through time

c. Maintenance

What has been done:

- NHI has prepared and presented a plan for adaptive re-use to local government (see Annex)

What needs to be done

- Review plan with local government through core members of the foundation
- Maintenance activities
- Resolve incompatible uses through policy or legislation

d. Exhibition

After further research, exhibitions can be planned around the bridge. In the meantime, to drum up interest in the bridge, brochures may be developed, and past exhibits can be linked to bridge, as indicated in the next illustration.

THEMES & EXHIBITION IDEAS

- Information on bridge structure
- “Ano Ba’to” permanent exhibition
- Stone and water exhibition
- Mt. Banahaw, ecology and its rivers



VII. Short Term and Medium-Term Activity Schedules

The following are short and medium term activities that can be undertaken to start off the conservation efforts. A new long-term plan will be developed as soon as the institutional structure is finalized.

Activity	Date	Resources Required/ People Involved
Short Term		
Completion of Management Plan for discussion	February 2006	AMG
Preparatory meeting with core group of Friends of Malogonlong to finalize public presentation	March 2006	National Historical Institute, Department of Public Works and Highways, Luntiang Alyansa ng Bundok Banahaw (Green Alliance of Mt. Banahaw), Tayabas Tourism & Cultural Officer
Baseline Research	April 2006 to May 2007	Volunteers generated from core of Friends of Malogonlong
Public Presentation to Stakeholders/ Friends of Malogonlong Bridge	May 2006 (during Tayabas' Annual Mayohan Festival)	Coordination with local government
Dialogues and planning with the landowners around the bridge/ Agreements	May – December 2006	Core members of foundation and landowner
Registration of Foundation for Friends of Malogonlong Bridge	March – December 2006	Project Manager
Medium Term		
Initial Fund-raising for seed money to set up project team, continue research and organize activities around the bridge	April 2006 to May 2007	Core members of foundation
Flora and Fauna inventory	April 2006 – December 2007	Depends on availability of funds/ may be volunteer work
Collection of Bridge-related memorabilia	April 2005 – onwards	Call for papers, photographs and researches can be integrated into the Mayohan 2006 festivities
Conference on Malogonlong and other similar bridges	December 2007	

VIII. Sources and literature

Faustino “Dondi” Silang, former mayor of Tayabas town provided much of the material and insights on the bridge.. Mr. Silang is a driving force in historical and environmental conservation in the town of Tayabas. He has, through his leadership of the town and in cooperation with other stakeholders (academe, local historical/cultural NGOs) has drawn attention to conservation and cultural research issues.

The National Historical Institute also provided additional materials on stone masonry work in the Philippines.

The object has been described in the following publication:

Guerra, Juan Alvarez. **De Manila a Tayabas (Viajes por Oriente)**, 1878. Translated by Misael Mayol Pedrano, May 1985.

Unpublished sources of information are as follows:

Memorandum of Agreement By and Between the Department of Public Works and Highways and the Municipality of Tayabas

Undated paper by Gladys Mayo (uncertain), ca. 1999

Redor, Jun V. "11 Tulay na Bato sa Tayabas" (Eleven Stone Bridges in Tayabas). A listing and description of 11 stone bridges in Tayabas. July 15, 1997

Annex 1: 11 Tulay na Bato sa Tayabas" (Eleven Stone Bridges in Tayabas). A listing and description of 11 stone bridges in Tayabas. By Jun V. Redor, July 15, 1997

On the Road to Sariaya		
Bridge	Location	Year
1. Puente de Alitao	Alitao River, Poblacion	1793
2. Puente de Isabel II	Iyam River, Barangay Baguio	1853
3. Puente de Urbiztondo	Malao-a River, Barangay Malao-a	1854
4. Puente de Don Francisco de Asis	Domoit River, Brgy. Domoit (pansol – piped water)	1854
On the Road to Lucban via Palola		
5. Puente de Bai	Bai Creek, Brgy. Dapdap	?
On the Road to Majayjay via Manasa		
6. Puente de las Despedidas	Malaking Ibiya , Brgy. Lalo	?
7. Puente de la Ese	Ibiyang Munti, Brgy. Camaysa	?
8. Puente de la Princesa	Ilayang Dumacaa (Upper Dumacaa), Brgy. Matuena	?
On the Road to Pagbilao		
9. Puente del Malogonlong	Dumacaa River, Brgy Matuena	1850
10. Puente del Lakawan	Lakawan River, Brgy. Lakawan	?
11. Puente del Mate	Mate River, Brgy. Mate	?

NATIONAL HISTORICAL INSTITUTE
Historic Preservation Division

PROJECT: ADAPTIVE REUSE DEVELOPMENT OF MALAGONLONG BRIDGE
LOCATION: TAYABAS, QUEZON
DATE: August 15, 2005

RECOMMENDED PROGRAM OF WORK

- 1.0 Site preparation P_____
 - 1.1 Clearing and cleaning of site
 - 1.2 Site survey, measurement, mapping
 - 1.3 Planning and design
- 2.0 Provision of road signage _____
- 3.0 Site Development: Marker site _____
 - 3.1 Rip-rap wall and site drainage construction
 - 3.2 Site grading
 - 3.3 Area Landscaping
- 4.0 Site Development: Triangle junction _____
 - 4.1 Rip-rap wall and site drainage construction
 - 4.2 Site filling and grading
 - 4.3 Tourist Information and travelers' Assistance kiosk construction
 - 4.4 Area Landscaping
- 5.0 Access Road Development _____
 - 5.1 Grading and paving of access road
 - 5.2 Souvenir/Refreshment Stalls area development
 - 5.3 Provision of Public toilet facilities
 - 5.4 Area Landscaping
- 6.0 Restoration of Bridge structure _____
 - 6.1 Clearing and cleaning of bridge-way (removal of accumulated top soil on bridge floor)
 - 6.2 Mechanical and chemical cleaning of bridge structure
 - 6.3 Bridge wall consolidation and treatment
 - 6.4 Bridge repair and replacement works
 - 6.5 Curatorial work for the interpretation/presentation of the historic bridge
 - 6.6 Documentation before, during and after restoration of bridge
- 7.0 Provision of water and electric power supply _____
- 8.0 Riverbank and bed cleaning and rehabilitation _____

ESTIMATED PROJECT DEVELOPMENT COST P_____

Prepared by:

Recommending Approval:

EDSEL J. EMBALSADO
Restoration Architect

REYNALDO A. INOVERO
Chief, Historic Preservation Division

Approved

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Deputy Executive Director and OIC