

Conservation of Hinemihi; Consultation document

1.0 Introduction

- 1.1 In order to look after Hinemihi effectively we need to understand what is special about her. The National Trust has been putting together information about Hinemihi prior to discussing the approach to her conservation.

This includes:

The Phases in Hinemihi's physical biography

This provides a basic chronology of events in the life of Hinemihi (see section 2).

The Physical Fabric Survey of Hinemihi

This provides information about the condition of Hinemihi conducted by students from University College London (UCL) Institute of Archaeology from 9th to 11th of June 2003. This was carried out in order to look for evidence of the events that Hinemihi has encountered during her life (see section 3).

The Structural Survey carried out on Hinemihi

A structural survey was carried out by Morton Partnership on 27 April 2004 in order to identify the structural stability of Hinemihi's built structure (see section 4).

- 1.2 The understanding gathered from this process will help to decide between future conservation options. There are many stories told about Hinemihi, from many points in time and space. It is hoped that these different views can be interpreted with equal weighting and used to determine the most appropriate care for Hinemihi.
- 1.3 The next stage of the process is to place the information gathered into the context of the cultural values that surround Hinemihi. This will involve conducting meetings with interested parties to determine the values associated with Hinemihi. The outcome could be the development of an agreed way forward for Hinemihi.
- 1.4 His will need to be considered within the fact that Hinemihi is protected by English planning and cultural heritage laws. She stands in the curtilage of Clandon Park, which is a Grade I listed building, and stands within a garden and park area on the English Heritage Register of Parks and Gardens. Therefore, any changes or developments to Hinemihi would be subject to approval by English Heritage and the Conservation/planning office of the local authority.

2.0 The Phases in Hinemihi's physical biography

- 2.1 In order to simplify comparisons in the description of her physical fabric, the following phases have been identified as the main manifestations of Hinemihi. These represent events of major intervention in her physical fabric, evidence of which can be found in the existing Hinemihi. Apart from the 21 carvings that exist from the 1880's, the majority of the existing structure appears to date from restorations carried out in 1960 and 1980.



Figure 1. 1880 Hinemihi following her construction in Te Wairoa, North Island, New Zealand

2.2 In 1880 Chief Aporo Te Wharekaniwha commissioned and paid for the construction of “Hinemihi o te Ao Tawhito”, which took place in Te Wairoa, North Island, New Zealand (see figure 1). She was completed in 1881 by carvers Wero Taroi and Tene Waitere, Ngati (tribe) Tarawhai craftsmen. Aporo Katene Waiana and Ina Hohoaia were also involved in preparing the timber. Hinemihi was planned as a cultural centre for Ngati Hinemihi (which included the staging of funerary rites) and for Maori cultural performances (tourists paid to view the carvings, attend dances and to enjoy refreshments).



Figure 2. Hinemihi after the eruption of 1886.

- 2.3 On June 10th 1886, the eruption of Mount Tarawera destroyed Te Wairoa and the surrounding area. A number of people (30-50) were saved by sheltering inside Hinemihi during the eruption. In total 153 people died during the eruption. The local area was devastated and Hinemihi was left isolated (see figure 2).
- 2.4 William Hillier Onslow, fourth Earl of Onslow (1853-1911) - Governor of New Zealand from 1889 to 1892, purchased Hinemihi from Mika Aporo, son of the deceased Chief Aporo Te Wharekaniwha, for £50. Of the 23 carvings sent to Clandon Park, 21 can be identified today.
- 2.5 Hinemihi's carvings arrived in the UK in April 1892 and Hinemihi was erected near an ornamental stream or lake on the Clandon Park estate. Hinemihi appears to have been constructed in a similar fashion to that of the 1880's; with a front wall, door and window. A decorated sliding door, different partition wall carvings and a straw covered roof were alterations from the previous Hinemihi.



Figure 3. 1917-1919 Hinemihi following work carried out during WW1 by recuperating soldiers

2.6 In 1917 restoration work was conducted by recuperating WWI soldiers, including Maori National Expeditionary soldiers (Maori Pioneer Battalion). This resulted in a possible change of location for Hinemihi, or a change in position of the adjacent stream/lake (see figure 3).

2.6.1 Hinemihi is said to have been a source of spiritual comfort for Maori soldiers during this time. The story of the patients confronting the hospital authorities after having discovered that Hinemihi was being used as a boat shed and was rotting away by the lake, was often told by Raheera Windsor (e.g. at the Hangi in 2003, and at the Blessing ceremony at Hinemihi May 2004 shortly before Raheera's death).



Figure 4. 1919-1959 Hinemihi during this time her carvings were repainted, her front wall was lost and Hinemihi became an open structure

2.7 Between 1919 and 1945, a major reconstruction of Hinemihi took place (for which no records have yet been found) her front wall was removed and an open structure created. A new roof was added at some stage, and additional heke tipi (internal barge boards) were added to Hinemihi's interior. The poutahu carving (interior front roof support) was turned so that its carving was facing outwards. The carvings were repainted, and the red/white design on the carvings was reversed. The design painted on the maihi (bargeboards) was altered. It is likely that the carvings from the partition wall (window frame carvings) were removed from the structure and were relocated to the attic of the main house at this time (see figure 4).

2.8 Between 1934 and 1967 an image from one of the Burton Brothers' photographs of the right hand amo carving (carved post at the front of Hinemihi) was used on the Reserve Bank of New Zealand's one-pound banknote.

2.9.1 In 1956 Clandon Park and gardens– including Hinemihi - was donated to The National Trust and the seventh Earl of Onslow and his family moved into a private house on the Clandon estate.



Figure 5. 1960s Hinemihi following restoration in which a new roof was constructed, the carvings were repainting and the open structure retained.

2.10 In 1960 a major restoration of Hinemihi took place. K. A. Webster provided technical advice for the refurbishment work. Cummings, a local building firm who were already working on the main house, were engaged to carry out the work. This included the installation of the current heke (rafters) and tahuhu (ridgepole), replacing the pre-existing roof timbers. The internal woven matting panels, the birch bark saplings that line the interior roof, and possibly the external elm boarding, were added at this time (although it is possible that the external boarding was reused from the earlier Hinemihi). A new straw thatch roof was applied. The decorative designs on the heke (rafters) were painted at this time and it is likely that the other carvings were also repainted along with the addition of replacement paua shells to eyes of the carvings (see figure 5).

2.11 In 1974 Bernard Kernot from Wellington's Victoria University, Department of Anthropology and Maori, reported to the Maori Buildings Committee of the NZ Historic Places Trust. His report states that: interior carvings were facing outwards not inwards, some exterior pieces were missing, the embracing couple carving on the interior wall was not part of Hinemihi's carvings. Hinemihi's form had been foreshortened, exterior timbers were deteriorating, and the roof will need replacing in a few years. Kernot identified the work that would be needed: addition of a front wall, and repainting of the carvings and roof timbers.

Kernot stated: "The report of the English contractors shows little appreciation of the house as a cultural object with its own system of symbols, as distinct from a collection of carved posts and painted scroll designs to be restored"



Figure 6. 1980s Hinemihi following restoration by Draper & Sons in which repainting of the carvings took place, and most significantly, a new front wall was added.

2.12 In 1980 Draper & Sons - a building firm specialising in historic timber buildings - refurbished Hinemihi. A new front wall, door, and window were added. The poutahu (interior front roof support) was turned around to its correct position. The carvings were cleaned and repainted, and the red/white colour scheme (from the 1960's) was reversed to match the original 1880's white/red scheme. The concrete base was reformed where it was crumbling, lead membranes were added underneath the amo. A drainage trench was dug around Hinemihi's perimeter. Birch saplings were added to the underside of the roof, paua shells were reattached to the carvings. A thick reed thatch roof replaced the thinner straw thatch roof (see figure 6).

2.12.1 Mr Draper stated: "We consider that although there are some items that are incorrect, that we achieved, against some odds, a fair representation of the original building, which the National Trust appreciated".

2.12.2 John Perry (Director of the Rotorua Art Gallery) stated " From the photographs I have seen, Drapers have done a good job replacing the wall, window and door, and restoring the carpetwork, but for me the raised thatch spoils the outstanding features of Hinemihi"



Figure 7. 1995 Hinemihi following involvement of Ngati Hinemihi and some restoration by Bob, Jim and Cathy Schuster, including the gift of new carvings created by Robert Rika and Colin Tihi

- 2.13 In 1995 Thirty members of Ngati Hinemihi travelled to Clandon Park to give newly created carvings to Hinemihi. They included; Robert Rika, Julia Rika, Colin Tihi, Jeff Crook, and Revd. Robert Schuster. Following a blessing ceremony, the new carvings, along with the recently discovered original carvings from around the window, were added to Hinemihi. Bob, Jim and Cathy Schuster conducted restoration work on Hinemihi prior to the dedication ceremony. This included some adjustments of the positions of the paepae (porch threshold) and maihi. Replacement of birch saplings in the porch with bamboo (closest locally available material to the traditional toe toe reeds) was carried out, as was cleaning and repainting of certain sections of the amo and raparapa (projecting ends of the maihi) (see figure 7).
- 2.14 In 1998, proposals were made by Ngati Hinemihi to continue Maori involvement in the maintenance of Hinemihi. These changes included:
- Continuation of refurbishment with the replacement of the thatch with a totara bark shingle roof.
 - The addition of photographs of people involved in Hinemihi's story

David Brock-Doyle, The National Trust's Property Manager at Clandon (1995 –2003), agreed to consider these proposals "when the present thatch needs replacing", which would initiate the next phase of major intervention in the physical fabric of Hinemihi .



Figure 8. 2003 Hinemihi Ngati Ranana performing during the kohanga rio (Maori language pre-school) annual hangi.

3.0 Results of Physical Fabric Survey of Hinemihi

- 3.01 Prior to starting the physical fabric survey, a karakia (blessing service) was held, lead by Rahera Windsor, kuia (female elder) of Ngati Ranana (London Maori Club) – which took place during the annual Hangi (literally an earth oven which forms the centre of the gathering) on 8th of June 2003. This was suggested by Jim Schuster of Ngati Hinemihi through contact with Alan Gallop "... just to keep them safe in their work."

A protocol for carrying out the work was discussed with members of Ngati Ranana, which included: approaching Hinemihi for the first time each day from the front rather than from the side; and refraining from eating, drinking, or smoking on the marae (gathering place in front of Hinemihi). The removal of shoes (a traditional tikanga or protocol) whilst working inside Hinemihi, was not requested.

3.1 Physical integrity

- 3.1.1 The condition of the architecture, carvings, painting and weaving of Hinemihi needs to be considered in relation her overall integrity. There are elements that may need

to be addressed and rectified in order to reintegrate these symbolic elements to represent the body of a living ancestor, as they were when Hinemihi was initially built. These include;

- Foreshortening of Hinemihi's dimensions
- A lack of internal poupou (internal vertical wall posts) to support the heke (rafters)
- A lack of woven tukutuku panels (decorative internal reed wall panels)
- Damage to the carved faces of the ancestors
- Distortion caused by the thick thatch roof in relation to the tekoteko carving (carved figure on gable)

3.2 Painted surfaces

3.2.1 The majority of painted carvings, especially on the outside, have a degree of flaking paint on the surface. Intervention needs to be considered to stabilise the paint layers and to prevent further deterioration.

3.2.2. An Initial examination of the paint layers on Hinemihi's carvings suggests that repeated repainting, numbering more than eight separate decorative schemes, has occurred since Hinemihi was created in 1881. The initial blue, red, black and white decoration has been adapted and developed during her time at Clandon.

3.2.2.1 The existing painted surface is largely a result of a series of interventions: mainly in 1960, in 1980, also at some stage between 1919 to 1945, and some additional painting in 1995. The analysis of paint samples being carried out at the Institute of Archaeology will help to clarify the nature of the paint chronology.

3.2.3 Most of the structural cracking evident on the painted carvings appears to be old damage. This can be monitored annually to identify changes in the levels of damage. One carving – the south amo – has an area of unstable wood that is loose and liable for further damage. This may need interventive treatment in the near future.

3.2.4 The integrity of the painted surface has implications for the stability of the underlying wood carvings. The loss of surface paint will lead to the increased exposure of the wooden structure to the external environment.

3.2.4.1 The solution to this in both 1960 and 1980 appears to have been to remove the carvings from Hinemihi, followed by the removal of the existing paint, and then prime and repaint the surface of the carvings. This tends to be a usual course of action for meeting houses in New Zealand.

3.2.4.2 A less interventive option would be to secure the existing painted surface in place or, with the assistance of Maori artists, to secure the surface layers and repaint the design over the existing paint layer. The danger with this is that the carving becomes softened with the clogging effect of numerous coats of paint. However, regular maintenance of the painted surface could reduce the need for major repainting interventions.

3.2.4.3 The condition of the carving is usually considered to be more important than the condition of the painted surface. There is a need however to return Hinemihi to a respectful appearance which reflects the mana (prestige) of the community. This needs to be considered along with the retention of the work of the old carvers which is not only historically significant but is also imbued with the mana of their creators.

3.2.5 A separate issue is the change in colour of the black design on the heke (rafter timbers). This painted design dates from the 1960 intervention, which is not consistent with the 1880's design. There seems to be deterioration in the paint, especially the black areas of design, which has led to a fading of colour. Further investigation will be needed to assess the nature of the problem. Annual monitoring will allow an assessment to be made about the rate of change caused by this process.

3.3 Internal roof covering

3.3.1 The removal of birch bark saplings that have been damaged by wood borer insect activity (added as a part of the 1960's/1980's intervention) should be considered. The birch saplings have already been replaced in the porch roof area (during 1995). These do not provide a structural function and will increasingly tend to become detached from the ceiling. These may need to be repaired or replaced with a suitable lining material, such as bamboo or kakaho reeds. As good images of the original 1880's Hinemihi exist it would be possible to recreate the type of structure present at that time.

3.4 External wall boards

3.4.1 It is difficult to say when the vertical elm boards were put in place – possibly in 1960 – however; the boards could have been reused from an earlier Hinemihi. In the 1880's, the external boards were laid horizontally rather than vertically. Some replacement boards were added in 1980 by Draper & Sons. See Structural Survey 4.2.5 (below) for recommendations.

3.5 Tukutuku panels

3.5.1 The woven internal wall panels installed in 1960's (matting attached to hardboard panels) are in poor condition and will eventually need to be repaired or replaced. Their replacement with modern tukutuku woven panels would be an option at this time.

3.6 Summary of Conservation Response

A range of conservation responses can be considered as a starting point for discussion about action required for Hinemihi's long term conservation.

3.6.1 Minimal intervention

The following actions are necessary to maintain the current physical fabric of Hinemihi:

- Re-dress and re-wire thatch reed in the thatch roof (see 4.2.4 below)
- Repair /replace damaged bases of external elm vertical boards (see 4.2.5. below)
- Repair Rodent proof wire at base of walls (see 4.2.5 below)
- Resolve the problem of the damaged birch saplings from the internal roof covering.
- Reduce ground level to below concrete sole plate, repair deteriorated areas of sole plate (see 4.2.2 below)
- Cut back surrounding overgrowing vegetation
- The majority of painted carvings, especially on the outside, have a degree of flaking paint on the surface. Intervention needs to be considered to stabilise the paint layers and to prevent further deterioration.
- Internal panelling representing (tukutuku panels) is damaged and needs to be repaired/replaced.
- Provide safe storage for the detached heke tipi (internal barge boards) currently stored with in Hinemihi.

3.6.2. Major intervention

Increased intervention may be required to address aspects of Hinemihi's spiritual and cultural significance:

- Inclusion of services such as electricity, toilets, showers and flooring to enable Hinemihi to function in a similar way as do meeting houses in New Zealand.
- Recreate original dimensions of Hinemihi to correct current foreshortening.
- Reconsider the current orientation of Hinemihi in relation to that of its location at Te Wairoa
- Alter roof structure to correct the lack of internal poupou to support the heke timbers.
- Reduce thickness of thatch or replace roofing with totara bark shingles. This will correct the distortion caused by the thick thatch roof in relation to the tekoteko carving.
- Create new tukutuku panels
- Add new carvings
- Restore damage to the carved faces of the ancestors
- Reintegration of a sliding door, and addition of papae kaiawha (beam at front edge of porch)

Any major intervention to Hinemihi would be subject to approval by English Heritage and Guildford Borough Council Planning Department.

3.6.3 Annual maintenance

A great deal of long-term benefit to the physical condition of Hinemihi can be accomplished by simple routine maintenance.

3.6.3.1 Animal and thatch debris, algae and accumulated dirt can be removed by conservation cleaning. This type of cleaning might be considered as an annual event and could be combined with an assessment of condition. This could take place before the annual hangi in early summer. In addition, it should also be ensured that the damp course is not covered by debris, and that the protective wire on the roof and ground are intact.

3.6.3.1.1 This type of conservation cleaning was carried out jointly by volunteers from Ngati Ranana and Conservation students from UCL, on 5 June 2004. This involved removing dirt and accretions from Hinemihi's surfaces. This was carried out prior to the kohanga rio annual hangi on 13 June 2004.

3.6.3.2 Mitigation measures to reduce animal activity in and around Hinemihi are required. The protective wire on the roof and at the base of the walls should be secured.

3.6.3.4. Following identification of the insect pest species, a programme of integrated pest management will need to be implemented for Hinemihi. This will involve monitoring levels of infestation, preventing access to pests, and eradication identified infestations. This will need to include control of the burrowing animals that are currently gaining access to the interior of Hinemihi.

3.6.3.5. Planting in the surrounding garden needs to be reviewed, and a regular programme of pruning vegetation within the vicinity of Hinemihi needs to be undertaken. Garden debris around the perimeter of Hinemihi needs to be cleared away, effective drainage needs to be ensured, and vegetation growth prevented.

3.6.3.6. The condition of overhanging branches of the oak trees will need to be assessed and mitigation measures undertaken when required.

4. Results of the Structural Survey carried out on Hinemihi

4.1 Introduction

4.1.1 In order to get the best possible picture of Hinemihi's structural condition, Ed Morton of the Morton Partnership was asked by the National Trust to carry out a structural survey of Hinemihi. The Morton Partnership was recommended by the NT Buildings Department as a company with experience of working on smaller buildings, such as Hinemihi. The survey was carried out on 18 May 2004 following a blessing by Kuia Rachel Windsor, which took place on 27 April 2004.

4.1.2 The purpose of the inspection was to assess the structural condition and produce a written report with recommendations for any repairs necessary to her. In addition we were requested to assess the load bearing capabilities of the roof in relation to the thatch covering.

4.2.0. Recommendations from the Report

4.2.1 Hinemihi is in general good condition. The main problem is the build up of ground levels to the rear east elevation which has led to decay of the cladding boards, the soleplate (timber at the base of the walls) and more importantly apparently to the base of the main post which supports the ridge purlin (timber running along the apex of the roof), from which the roof is 'hung'. The post base should be properly exposed and then repaired with a new base, spliced on as necessary. It is recommended that this is carried out prior to next winter.

4.2.2. At the same time, or before, the high ground levels around the building should be reduced. This should be carried out as part of normal maintenance for the building. The consultant does not consider that improving drainage at this time is necessary as long as the levels of the surrounding ground are controlled and not allowed to build up.

4.2.3 With regard to the ability of the roof structure to support the thatch the consultant is satisfied that this is perfectly acceptable and within the structure's capabilities. The only issue relates to the front projecting gable boards whose tendency will be to spread. To resist this action it would seem sensible to use the added struts and provide them with small concrete pad foundations with an integral upstand to raise the timber foot slightly out of the ground.

4.2.4 The thatch itself was probably renewed during the 1980's restoration, and therefore should have at least a further 35 to 40 years life. However it could benefit from both re-dressing and re-wiring. Before this or other work is carried out a bat survey should be carried out to establish the presence and usage of Hinemihi by bats and thus allow appropriate procedures to be followed.

4.2.5. Other works are suggested as below:

- Electrical test;
- Replacement of decayed soleplate etc. to rear east elevation. The consultant recommends an increased depth soleplate is used to allow the existing cladding boards to be re-fixed at a slightly higher level and thus avoid replacing the boards throughout due to the decay to their bases;
- Consideration to general external board removal and fitting of vermin/bird proof mesh to prevent nesting in the frame (note that this will be subject to results of bat survey);

- Re-fixing of warped and twisted boards, or possible replacement if they can not be realigned;
- During re-decoration in the future fill any local pockets of decay in carved gable boards and support posts profiling to throw water clear;
- Re-fixing of finishes where necessary;
- Replace rodent mesh.

5. Conclusion

There are a number of possible paths that can be taken regarding Hinemihi's future. It is hoped that this document will give all interested parties a better understanding of her physical requirements, which can then be considered side by side with her cultural requirements.