

More on Hoa Hakananai‘a: Paint, petroglyphs, and a sledge, and the independent value of archaeological and historical evidence

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Introduction

It was a privilege to be able to study Hoa Hakananai‘a in the British Museum, in the quiet of the Wellcome Trust Gallery at night. My hope was not just to learn new things, but also to encourage debate about one of the museum’s under-appreciated exhibits.

I was delighted to see responses in the *Rapa Nui Journal*, one to my article in the same edition (Pitts 2014), and the other to an earlier magazine feature (Pitts et al. 2013). The editor offered me the chance to comment on these, but I preferred to wait until more of our peer-reviewed articles had been published, which they have now been (Miles et al. 2014; Pitts et al. 2014; see also Miles et al. *in press*). Jo Anne Van Tilburg (2014) has usefully traced the buyer of the photo I reproduced, taken in 1868 (Pitts 2014:Figure 3). Georgia Lee and colleagues have made a significant contribution in finding an original print of the second 1868 photo (Lee et al. 2014:Figure 3). I agree with Van Tilburg (2014:50) that the identity of the photographer remains uncertain.

New and Old Paint

My colleagues and I had earlier suggested (Pitts et al. 2014:4), and Lee et al. (2014:56) can now show, that the statue had been freshened up for the photo, much of the paint that had been there originally having been washed off during the short journey from Rapa Nui to H.M.S. *Topaze*. Accepting that, however, need not negate my interpretation of the paint (Pitts 2014). Indeed, it may strengthen it.

Lee et al. (2014:56) argue that the carvings on the back had been outlined in white paint for the rear photo. This image strongly suggests that that was not the only *Topaze* paint. Something had been applied over the bodies of the birdmen, and elsewhere inside the white outlines, which gave the stone a smoother face than elsewhere. This is especially clear in the contrast between the painted figure and the unpainted stone on the right shoulder (Lee et al. 2014:Figure 4a and b).

Palmer (1870:177-8) and Dundas (1870:318-9) say that Hoa Hakananai‘a was originally painted red and white; Dundas more specifically states that the face and back were white and the petroglyphs red (Pitts et al. 2014:4). Van Tilburg questions the reliability of their records, emphasizing that neither writer was “present when the statue was discovered” (2014:51; cf. 2006:36). Whether or not that is the case (like most details in this saga, it is not something of which we can be certain), surely the men would have seen the statue at some point before it was rafted out to sea? There are, in fact, reasons for believing that Dundas at least did so, and was a particularly reliable witness (see below). If the *Topaze* crew sought to imitate the original and had the wherewithal to achieve it, the new paint covering the birdmen would have been red.

Arguably, care had been taken during the set up for photography, to represent Hoa Hakananai‘a as it had been when the crew found it – which included standing the statue erect (see below). Not only had several officers seen the statue only weeks before in that state, but some paint remained (perhaps, one might guess, older paint that had dried into the stone’s pores, distinct from relatively fresh pigment that might have been entirely lost in the sea). Someone apparently sketched “carvings of birds and rapas on the back of the head” while the statue was still in the ground (Pitts 2014:43). We may not know who that was or what happened to the drawing (Van Tilburg 2014:50-1), but “the sketch was duly exhibited on board” (Lee et al. 2014:54), and would surely have been there when someone took a brush and paint to Hoa Hakananai‘a in Valparaíso, if any further guide were needed.

Digital Models

It is reasonable to think that the paint we see in the 1868 photos, while mostly applied on deck, accurately represents the paint as it was found on the heads of both birdmen. Our interpretation of the right birdman’s beak in our digital imaging, as seen in rock topography which matches the shape in paint in the 1868 rear

photo, is questioned by both Van Tilburg ("one must allow review of all of the 90-150 images produced, not just selected copies," 2014:52) and Lee et al. ("the interpretation of the data provided by the RTI is complicated," 2014:56). Neither Van Tilburg nor Lee et al. would have seen our analyses at the time they made these comments. I stand by our claims, and recommend consulting our published articles (Miles et al. 2014; Pitts et al. 2014).

Van Tilburg's curious reference to "90-150 images" perhaps relates to her own photography (none of which has been fully published). For the record, James Miles created five RTIs, each based on 57-87 photos, and the photogrammetry model used 150 images (Miles et al. 2014:598-600). However, what matters is not the original photos, but the models themselves – the point of the exercise – of which we have six (five RTI, one photogrammetry). It was our intention that these models would all be made publicly available, for that is the only way people can judge our analysis, and, importantly, make their own observations. What can be seen so far can be found on a blog by James Miles, where he elaborates on Van Tilburg's possible misunderstanding. He has no doubts, he says, that the digital study is "the most accurate and most complete investigation ever completed on the Hoa Hakananai'a statue" (Miles 2014).

Rising Ground

As my colleagues and I have done, Lee et al. discuss the question of the ground level when Hoa Hakananai'a, partially buried inside a stone "house", was found by the British naval crew. This matters because it determines not only how the statue appeared during its final ritual manifestation, but also how much of the dorsal carvings were visible (which in turn has implications for when they were made, and how we might read them).

It might also become important should there ever be scientific excavation at the site, and it transpired that some of the ground into which the statue was sunk was still *in situ*. Despite all the disturbances, this is a possibility that should not be dismissed. New survey and excavation is an important requirement – but more important is that it be conducted to the very highest standards by archaeologists with a proven record of fieldwork and publications.

For our key paper (Pitts et al. 2014), I created a series of images showing, as best as we could tell, how the statue might have appeared at three stages in its history (reproduced here as Figure 1). It shows James Miles, who is 6' 2" tall (1.88m) standing with the statue as it is now mounted (on the left), but as it would have looked before any secondary carvings were added; as it might have been when two *komari* were carved at

the top (center); and when the main petroglyphs were executed (on the right – I will say more about this sequence below).

Until it was uprooted in 1868, the statue was probably never seen as we see it today. Midden deposits seem to have been rising around it as, and also possibly before, petroglyphs were carved on the back. Katherine Routledge noted rabbit and sheep bones in the soil, suggesting that such accumulation continued into historical times (Pitts et al. 2014:26).

Lee et al. are concerned with the last of our three states, when apparently nearly half the statue was buried. They suggest that ground level was at a nominal 140cm from the top, a little higher than our estimation of some 150cm (Pitts et al. 2014:7-8). This appears to be more or less what John Palmer described when he wrote that the statue "was buried waist deep in the ground" (1870:178). On current evidence, it might appear that we can be no more precise than this. But perhaps we can.

It seems likely that a combination of staining and old paint would have distinguished, at the time of photography, those parts of the statue that had been below and above ground. We see differential toning in previously part-buried statues exposed by Thor Heyerdahl's team. For example, in Heyerdahl (1958), an abrupt change in color of statues made of Rano Raraku tuff marks the original ground level, across the chin in one case (plate opposite page 96) and the chest in another (plate opposite page 97). Hoa Hakananai'a is made in a flow lava which is darker and harder than the tuff, so soil staining is unlikely to have operated in an identical fashion: but we might imagine some such effect would have occurred.

We can see in both of the 1868 photos that old pigment covers most of the head. Lee et al. convincingly argue that some Rapa Nui paint (as opposed to *Topaze* paint) shows in the rear photo, notably the white "background between the paddles and the ears of the statue... [and] the area behind the neck of each Birdman" (2014:56). There seems also to be original white pigment covering the head, neck, and left shoulder in the front photo (Pitts 2014:Figure 3). There is white paint on the back shoulders as well. There is none at all, however, visible below this level. This is clearer in the front photo, where the old paint has not been overlaid with new. Here it seems to stop quite abruptly at a more or less horizontal line, with a hint of a band of darkened stone. This could be the surface change betraying where the ground level was when the statue was removed.

Ground level being so near the shoulders would be significantly higher than any of us have previously suggested (about a meter from the top). Is it possible? As Lee et al. point out (2014:54-5), while Palmer describes the statue as being found "waist deep",

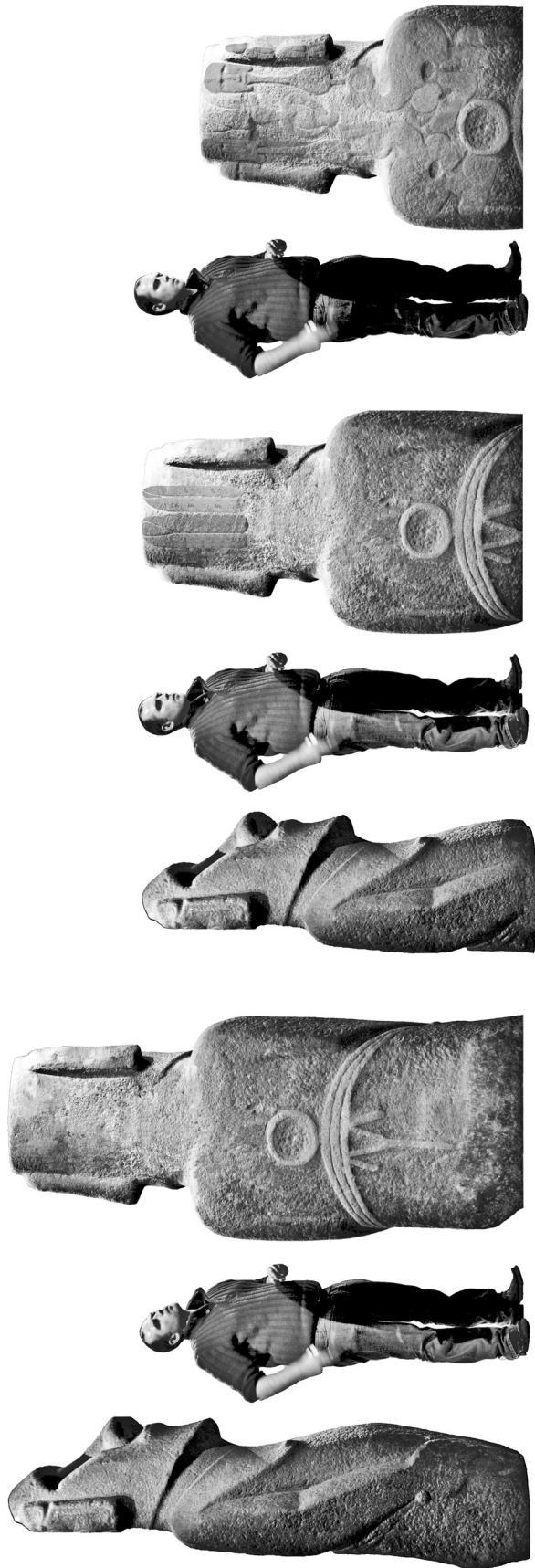


Figure 1. Three stages in Hoa Hakananai'a's history: *moai* with a missing stone hat (left); partial burial and carving and painting of two *komari* on the back (center); carving of a narrative of the birdman myth (right). (Photos by M. Pitts).

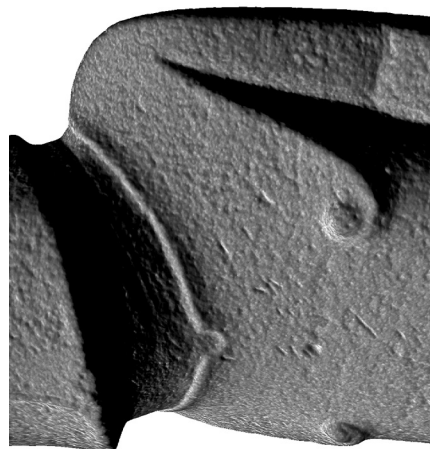


Figure 2. Front of Hoa Hakananai'a, showing short linear damage scars below the neck, apparently made with a metal instrument. (Extract from 3D photogrammetric model by James Miles).



Figure 3. Buried up to the shoulders? As drawn by Harrison in 1868 (left), and as suggested by the extent of white paint on the head (center and right). (Left after Van Tilburg 2006:Image 57; others after Pitts et al. 2014).

Dundas and Sainthill both say it was in the ground up to its “shoulders”. Other things being equal, there seems no *a priori* reason to prefer Palmer’s record on this to those of the other two men. Whether or not they all saw the figure *in situ*, Sainthill certainly did (1870:454).

One illustration of the statue in the ground has survived, a rather poor painting by Matthew Harrison (Van Tilburg 2006:Image 57). Unfortunately it does not show the ground, but what we see of the statue is what Dundas and Sainthill describe, from the shoulders up only. There seems to be a considerable space between the top of the head and the roof of the house, and a figure stands close by with the top of the statue apparently at the height of his chest (we do not see his lower legs).

We have tantalizing descriptions of substantial midden material on house floors (Pitts et al. 2014:25-6). It does seem possible that by 1868, Hoa Hakananai‘a had become buried up to its shoulders. This would explain why in the two photos taken soon after it was pulled from the ground, there is no old paint below this level – otherwise difficult to account for. It also allows for a possible explanation for some marks on the statue’s front.

These marks have always been visible, but little commented on. They show clearly in enlargements of the 1868 photo, for example, and in the British Museum today (Figure 2), but are all but omitted in Arévalo Pakarati’s drawing (Van Tilburg 2006:Image 21; 2014:Figure 1). The marks consist of a swarm of short grooves below the neck, aligned from top right to lower left, and all on the right side or center of the upper chest area, with a few descending to the level of the nipples or below. They look as if they have been cut into the finished surface of the statue. It is difficult to imagine how they could have been made with anything other than a metal instrument – which may be why we have ignored them.

But if the statue was buried up to the white paint line, there is a ready explanation for the presence of such nicks: they could be damage inflicted when it was being dug out with spades or crowbars. If metal tools are indeed responsible, it is difficult to think of any other explanation. For then, (no metal being available to indigenous islanders), they would almost certainly have to have been made between the British crew finding the statue and its photography a few weeks later in Valparaíso. These marks would appear to corroborate the suggestion of the paint in the 1868 photos, and the record of Dundas and Sainthill, that Hoa Hakananai‘a was literally buried up to its shoulders.

Moving Hoa Hakananai‘a

I claimed a certain veracity for Dundas’s records. Dundas kept a log of the *Topaze*’s voyage, which is now in Edinburgh (Dundas 1866-9). The little he says

about Hoa Hakananai‘a is worth printing in full (Van Tilburg has previously published part of a sentence, with a transcription error; 2006:37). Its significance is highlighted by the two 1868 photos.

The passage is the most detailed description of how the statue was collected by the crew of the *Topaze*. It reads as follows (transcribed from the original, with my comments in italics):

“The French captain [*Jean-Baptiste Dutrou-Bornier*] sent a number of the natives to bring in one [*statue*] *wc.* [*which*] proved to be very small only about 5 feet long & very much weather worn but we hoisted him in. [*This is Moai Hava.*] However another was discovered near the large crater half-buried in an underground house. He was evidently of some consequence as his back was carved all over with various devices... [*Here Dundas describes stone houses.*] Many of them [*houses*] are decorated with paintings, in different coloured earths, of paddles etc. We sent a party of 40 men to disinter this image and having got him out a large party were sent to drag him to the ship, a distance of more than three miles *wc.* they accomplished by making a sledge of capstan bars & dragging him broadside on over the softer ground & end on up the steep places. On arriving at the beach he was rafted off on spare Top gl. masts [*top gallant masts*] studs. booms [*studding sail booms*] & ships casks, & safely hoisted on board. He is the most perfect specimen we saw on the island & the only one in *wc.* we made out any attempt at carving on the back.”

This entry is dated “November”. On Saturday November 7, he writes: “Having hoisted in the image weighed [*anchor*] at 4PM under single reefed topsail with a breeze from ESE.” Barclay gives a shorter description (1899:180):

“Now it is not altogether an easy matter to transport a stone statue 8 ft. in height, and weighing 4½ tons, over a mile of rough country without timber, and then float it off to a ship in an exposed roadstead, whip it on board, and secure it on deck. However we had many willing hands...”

It might be thought that Barclay says the statue was moved without a sledge, but his phrase “rough country without timber” probably refers to the treeless landscape. Dundas described the event when it happened (we first see Barclay’s version in an article based on a talk he gave 30 years later), and his judgment of the route’s length is better (the journey by modern tracks is a little over three miles).

Dundas’s details have a strong air of verisimilitude. Peter Klein, who helped me with the reading

of Dundas's abbreviations, tells me the timbers referred to were parts of the ship's rigging that were superfluous if speed was not critical.¹ Studding sail booms were long poles used to extend the bottoms of particular sails to provide extra area. With a screw-assisted ship, such as the *Topaze*, these would seldom have been needed (although at that time sails continued to be used to save on coal). Similarly, top gallant sails extended above the top sail yards to gain sail area and extra speed, and the same argument applies. In the 1868 photo taken of the front of the statue, you can see what look like capstan bars on deck, and the capstan itself stands in the background (Pitts 2014:Figure 3).

Throw in ships casks for the raft, and it is apparent that a sledge and then a raft were made from spare timber that was relatively easy to take from the ship. The details described by Dundas convey the air of someone who both witnessed and understood the scene.

The 1868 photos throw light on what happened on board. Hoa Hakananai'a stands much as it does today, now in a plinth, then gripped by ship's timbers: it is lashed between two massive beams, mounted parallel to one another across the deck of H.M.S. *Topaze*, and held fast by capstan bars lashed to the beams. There is an abundance of matting on deck and around the beams, and a canvas sheet bears a carefully inscribed description of the statue.

Whether the *moai* was erected like this for the journey from Rapa Nui to Valparaíso, additionally for the voyage around the horn and across the Atlantic, or just to be photographed, we cannot tell (one chance for doing so may perhaps lie in the archives of the Congregation of the Sacred Hearts of Jesus and Mary in Rome, where Lee et al. (2014) obtained the rear view photo). The scale of the supports suggests that Hoa Hakananai'a spent at least part of the voyage standing, like a figurehead taken into the bosom of the crew. However, the timbers grip the statue very close to its base, and it may have been unstable in high seas. Perhaps then it lay flat on the matting.

Peter Klein tells me that the photos show the statue a little over to the port side of the ship, between the mizzen and main masts (the *Topaze* had three), facing forward. He wonders whether the smaller Moai Hava, also now in the British Museum, would have been carried on the starboard side to balance Hoa Hakananai'a. Moai Hava is said to weigh about a ton, compared to some 2.3 tons (Van Tilburg 1992:48, 60) or 4.5 tons (Barclay 1899:180) for the larger statue. "Good trim would have been important," says Klein (pers. comm. 2014), "although I don't suppose it would have made a great deal of difference to a vessel of nearly 4,000 tons."

A Complex History

However we read the right birdman's beak, it is a leap from that detail to a case for a scene featuring a pair of figures and their fledgling, as a representation of the famous birdman ceremony. However, I make the case partly to illustrate a wider point. We have some quasi-historical accounts of Rapa Nui practices in the early 20th century and before. These are important, but it would be wrong to assume that they represent all that mattered at those times, or that all they say is correct. There is also a substantial archaeological record of relatively recent events, one that is often overlooked or inadequately published. This also is important.

Ignoring historical evidence, we can construct an archaeological narrative from the statue Hoa Hakananai'a. We have two similar beaked figures with human feet, which we can call "birdmen". The figures face each other, but are slightly differently positioned: one has a prominent, pointed beak that rises into the air, the other a shorter, rounded beak aligned on the first. On the statue's ear above this second figure is a row of symbols that could be interpreted as vulvas, reinforcing the more feminine aspects of the right-hand birdman to suggest that the figure is female. If the opposite figure is male, the small bird rising between them could be their offspring. In place of the vulvas on the right ear, on the left ear is a design with a human face at the end of a paddle. This "paddlemán" ('*ao*) might by analogy be a male symbol associated with the male bird. If so, the paddlemen either side of the fledgling might indicate it also to be male.

Thus we have a scene representing mating and bonding, and an egg hatching – symbols of alliance and fertility, and cyclical rebirth and renewal. (The ring and girdle, acknowledged by all to be part of the original statue design, might then have been read as an egg and a nest.) The location of the carvings on a statue at the top of a high sea cliff, with the scene facing a group of small, remote islets, all of which could have provided suitable nesting habitats for sea birds, suggests this symbolic narrative may have been ceremonially linked to actual migrating birds.

I suggest such an interpretation of the petroglyphs on the back of Hoa Hakananai'a would be accepted as a reasonable hypothesis were the carvings sited in an entirely prehistoric context. We need to allow Rapa Nui's unusually rich archaeological evidence to have its own voice, to be judged alongside, but not by, historical data.

Archaeology is particularly good at considering change over long periods of time. In Pitts et al. (2014), we describe at least four stages in the history of Hoa Hakananai'a. It is unnecessary to repeat the argument and references here, but the sequence is worth summarizing.

1. The original statue (Figure 1, left): The freshly carved statue is erected in the ground, and fitted with eyes and a hat. The statue never had a flat base, so was made to stand in the ground where it was found in 1868, not on a platform. It has carved eye sockets and a flat top that could have supported a *pukao*, which might be the “circular stone... of hard basalt” found by Routledge built into a nearby house wall (1920:436). (Does this stone still exist? It is worth seeking out.)
2. Alteration phase 1: Features on the face and the front of the body are removed. If Hoa Hakananai'a was in all respects carved as a typical statue, this would imply that a raised navel, fingers reaching towards the center and a pubic swelling (*hami*) were largely removed at some stage (as perhaps also were fitted eyes). As hands are typically at the very base, this would have occurred when the ground was at a level similar to that at the time of erection. An alternative hypothesis would be that in these respects the statue looks now as it always has, due to limitations of the boulder from which it was carved. Our study concentrated more on the back than the front, and further imagery may help to resolve this.
3. Alteration phase 2 (Figure 1, center): Two *komari*, vulva symbols, are engraved into the top of the head at the back; midden deposits rise to cover the statue's lower part. The *komari* run slightly onto the top of the head, suggesting the *pukao* was no longer present. If the ground level was a little below the girdle on the back, with an accumulation of some 60cm exposing a statue about 1.8m high, a tall person would have faced the site of the petroglyphs directly.
4. Alteration phase 3 (Figure 1, right): A bas relief scene depicting aspects of the birdman ceremony is carved on the back; the statue is enclosed within a stone house. A further deposit of about 30cm brought the ground to the level of the girdle, and the statue was reduced to a height of about 1.5m. Additional sequence is implied by the presence in house walls here and nearby of stones carved for at least one earlier structure (Routledge 1920:436).
5. Final midden accumulation (Figure 3): Midden within the house rises to cover the statue to within 1m of the top, concealing most of the birdmen. The argument for this possibility is presented above.

Note

1. I am grateful to Peter Klein, who has been extremely helpful in explaining to me details of ship components and construction. He has listed the photos in his album (Pitts 2014:47) on Mary Jones' website, Persona Naval Press (http://www.personanavalpress.co.uk/john_osborne_response.htm). No other photos in the album were taken in the Pacific or on H.M.S. *Topaze*.

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