collaborator Richard Niania, who has the authority and mandate to do so, to preserve an ancient oral tradition at the moment when it is most threatened. The photographs are, at one level, a pretext for this other work to go ahead and, at another level, a gift to someone I loved who died around 15 years ago. That I get to bring these images into contact with others in Australia and, later this year, in Southern California, and in doing so get to bring Richard to both Australia and California to make contact with family members long separated – to reinvigorate the extraordinary intellectual tradition that is their whakapapa and to which they are heirs, and to enter into dialogue with other thinkers from parallel intellectual traditions – that is the really exciting bit for me, and a genuine privilege.

One role that these projects – these artworks that are also archives – might play is to disrupt the overwhelming claim to truth staked out by capitalism sutured to science in the form of technology. This suturing is how everything everywhere gets to be accounted for in terms of capital – that we should save the Amazon because there may be organisms in there that will cure my cancer; that there is an economic calculus to be applied to the survival of that frog versus that condo development; that perpetual economic growth is viable and even desirable – that kind of thinking emerges out of suturing ourselves to capital as truth. So I am developing a way of seeing truth which acknowledges the cohesion and validity of such an analysis, but does not allow it to sit alone and hold total sway.

With this in mind, what strikes me is that truth procedures can not come into contact if knowledge systems have been lost completely. We need to imagine, or to re-learn, how to live outside capitalism if we are going to survive as a species in this biosphere, and we can only get there by trying things out physically and intellectually. Micro-utopian experiments are essential, as is speculative thinking of the kind that gets played out in some science fiction. But we don't have to make everything up from scratch. There is the past to refer to, and there are some people still living in an un-modern present. We can ask those who still remember or who still live outside modern systems how it is that we can live.

The deeper research behind "Te Taniwha" involves Richard interviewing knowledge-holders from Te Reinga, while I have committed to recording and processing these documents. While we're open to everything they have to tell us, many older people have enjoyed describing how they lived in the 1930s, '40s and '50s, when there was no electric power at Te Reinga, when Māori was still the first language (and an ancient and specific dialect was spoken) and when communal marae life was still the norm in that place. This was a community, now still very much within our intellectual reach, that was not based in capitalist practices, and which had a very limited interaction with modern technology. These elders have answered really simple practical questions about how to live a life of subsistence, but also raised deeper ideas about collective life, communal interdependence and family structure. There is a really viable model there, which we are hoping to record and discuss while those who experienced it are still able to describe it.

Knowledge systems can't make contact if they no longer exist. While I didn't know this at the outset, I've started to see a role for this work in supporting those who have knowledge in their bid to manifest and sustain it, and to channel its power.

The great threat of the present moment is the utter dominance of capital, sutured as it is to science in the form of new technologies. This propagates our current condition of hypermobility and with it the potential for the loss of entire knowledge systems. This is what is at stake when people from ancient communities in Aotearoa are drawn out into the deserts of Western Australia to dredge up commodities from which to fabricate iPhones and iPads, technological machines that will bathe us in images of horror, fantasy, ecstasy or release – while burying the very knowledge systems we need or sucking the life out of them at exactly the moment when we need them most – as our biosphere teeters on the brink of collapse.

Perspective

A HOLY GRAIL

Alan Bekhuis

As digital technologies have become more prevalent, so too have 'alternative' photographic processes within art photography. My perspective is that of a modern practitioner of daguerreotypy: the first publicly announced form of photography, which until recently has been at the tail end of the resurgence of historical processes.

Since the daguerreian era (c.1840-60) there have always been people practicing the art. They are usually drawn to it because of a curiosity about the dawn of photography, or a fascination around the 'mirror with a memory' concept. Until the age of the internet they tended to be isolated individuals, and what community there was did not achieve the critical mass required to propel the practice forward into a fully-fledged art movement. Late nineteenth and early twentiethth-century practitioners such as William M. Hollinger, Charles Tremear and Ray Phillips are well known amongst modern daguerreotypists, most of whom experienced the same difficulties one hundred years later in obtaining materials and equipment. Furthermore, in order to perfect the process, extensive practical application is required, whereby the practitioner becomes familiar with the subtle nuances of the method, and the information that can be gleaned from a written account naturally falls short of providing this. These challenges have meant that practising artists have always remained few and far between.

The mid-nineteenth century practice of the daguerreian art reached astonishing technical and artistic heights because of the medium's popularity with the public as well as the industry that it forged. This industry provided high-quality silver plates produced especially for the purpose, lenses made to the specific light sensitivities of the daguerreotype, and an abundant supply of proven chemical formulas. Most of all, though, one could learn first-hand from a daguerreotypist who had achieved a technical plate quality which is still to be equalled in the modern genre. In the daguerreian period in the United States alone it has been estimated that over 40 million daguerreotypes were made. The absence of such an established industry in modern times has been a significant hurdle to artists taking up the practice in the post-daguerreian era, but over recent years this has begun to change.

From the 1970s through to the early 1990s small bands of makers started to emerge. This occurred primarily in the United States and developed out of antiquarian photography collecting. There is a link between the study of the history of photography and the rise in alternative photographic processes, and the world's first photography museum, George Eastman House, in Rochester, New York, has played a ground-breaking role in this area as well as in the development of photographic conservation science. This has meant gaining practical knowledge of the various processes in order to better understand them; to this end, Eastman House has since the 1980s given tuition in nineteenth century processes. Together with the unparalleled technology and manuscript collections at Eastman House, this has fostered the flow of practical knowledge of processes, and many modern-day masters have spent time there.

The internet has played a critical role in the renaissance of the daguerreotype, allowing for the sharing of information, technology and support across the globe. Whereas the pre-internet modern daguerreotypist was an isolated individual, tending to closely guard his or her accrued knowledge and to see the process in technical rather than artistic terms, today's practitioner has access to the rallying point the internet has become, and can easily be informed of gatherings and exhibitions about the process. In 2008 I co-founded the website cdags.org with this in mind. It features artist and technology galleries, a wiki, and an integrated forum. In 2009, due to heavy promotion on cdags.org, 44 artists participated in an international exhibition in Daguerre's home town and resting place of Bry-sur-Marne.

Most recently, efforts to form an active daguerreian artist community have come to fruition in the form of the ImageObject event. Previously, the only event to focus on the contemporary daguerreotype was the Daguerreian Society's annual symposium, and only then as an adjunct to its main focus, daguerreotypes from the nineteenth century. ImageObject is an annual international contemporary daguerreotype exhibition, symposium and trade fair, and is held in New York City at the time of the AIPAD (Association of International Photographic Art Dealers) show. In the late 1990s it was rare to see contemporary alternative processes at AIPAD: such artworks at that time were held somewhat in the same regard as historical re-enactment images. At this year's event, however, I noted they stood out as an obvious trend in the gallery spaces. ImageObject aims to build on this, but in promoting the daguerreotype process and bringing the genre closer to the art market rather than keeping it as an adjunct to the antiquarian collecting market. In this way it will attract more artists to take up the practice, and the resulting sales will make it a self-sustaining pursuit rather than an expensive pastime.

My involvement in this genre came about a result of my background in photographic collection management. In 1997, I undertook a one-year certificate programme at the George Eastman House, entitled "Photographic Preservation and Archival Practice." Learning the historical processes first-hand set me on the path towards becoming an artist. These processes were something quite different from what I had experienced in my home darkroom: they imbued me with a desire to make something with more intimate presence than a black-and-white, resin-coated paper print.

Digital photography as a means of artistic expression leaves me with a sense of a creative void rather than with a feeling for an object that feeds inspiration back to me. I put this down partially to its lack of scarcity and intrinsic value that I believe constitute an artwork. In this respect the daguerreotype becomes the antithesis of a digital image: it is unique, not only because it is both positive and negative, but also because no copy can reproduce the extraordinary quality of the original. With a digital image, any number of copies can be made, all exactly the same as the original. This is less of an issue with a paper print from a positive/negative photographic process, but the product of such a process still offers a far lesser sense of immediacy than a daguerreotype does. When you hold a daguerreotype in your hand – a portrait of an important individual, say – you know that the plate was physically present in front of the sitter when the artist took the exposure. That knowledge brings an intimacy to the viewing: the image as a physical object speaks to the viewer in a way that a photograph, as mere information in a transitory vessel, never can. The daguerreotype, therefore, seems particularly well suited to the fine art photography market: the authenticity of a piece is unquestionable and the intrinsic value is high.

The process of making a single daguerreotype image is a far cry from the ease of conventional photography, or even many of the other 'alt' processes. So much effort is needed to prepare the plate that it is difficult to treat the actual exposure as a spur-of-the-moment undertaking. Practitioners usually take many years to overcome the hurdles of obtaining both the necessary equipment and the experience to cope with the difficulties of the process. Even once that level of expertise has been attained, the making of each individual image is something of a trial, and if the daguerreotypist makes his or her own silver plates it is further exacerbated. Copper plate is cut to size and polished and electroplated with silver, a process that can be a profession in itself. To prepare the plate for sensitisation it must be brought to a fine, mirror-like polish. It is difficult for the uninitiated to judge the high level of polish required to form the light-sensitive silver salt through exposure to the halogens of iodine and bromine. Only through trial and error will the appearance and subtle qualities of the necessary polish become apparent.

I need approximately three hours to prepare a single plate for sensitising, starting from mill finish (unlike most practitioners, I used cold-rolled Sheffield plate, which requires some extra steps). The halogens used need to be of the right concentration, and this working stock must be constantly monitored and adjusted, usually the day before shooting. The amounts of iodine and bromine applied to the plate must be proportionally correct: this is determined on the day by first shooting a test plate. For a test plate and, for example, two plates for exposure, this means at least a day's worth of polishing prior to the day of shooting. In exposing a plate to a scene, the exposure time is also judged based on experience. The ISO of a plate is about 0.02, but other factors will also determine the exposure, so practical knowledge plays an important role. Development of the image in the mercury pot and the

amount of gilding is also determined by experience and constant inspection. At any time in the preparation process, a calculation error in sensitisation, exposure, development and/or gilding can ruin an exposure. Alongside all this effort and concentration on technical matters, the daguerreotypist of course also needs to pay attention to artistic concerns. Common exposure times for my daguerreotypes range from two to 20 seconds, making still lifes a more attractive subject matter.

I present my daguerreotypes in high-quality, traditionally made enclosures. This presentation is not intended to serve as historical re-enactment, but to expand the experience of the image as a unique and revered object. The authentic presentation of a modern image, I feel, lends it a timeless quality. My plates are sealed in French-style passe-partout that have reverse painted cover glasses as matte windows. These in turn are presented in finely made wooden cases covered in Moroccan goatskin leather, all made by methods outlined in an 1854 catalogue.

The presentation of an image as an object of reverence – essentially a taonga – dovetailed well with my series on Māori culture. As Māori historian Amiria Henare has said, taonga represents the "connective tissue between generations." Other forms of taonga play an important part of portraiture as well: bone and greenstone carvings and precious woven cloaks were often worn historically by sitters for their portraits. Furthermore, the use of portraiture at tangi reflects the importance given to images as objects. All of these aspects come together in one of my favourite kuia portraits that I produced. Rangianewa, from the local hapū Ngāti Wāirere, wore the family taonga important to her for her sitting – a korowai and a bone hei tiki. I feel the portrait captures her grace and dignity, and as a daguerreotype it transforms what could have been a mere photograph into taonga. Rangianewa passed away later that year and I offered the portrait to the family. They asked me to keep it for the year following her death, and in accordance with tikanga they also asked for it to be kept hidden from view for that year. I stored it in a safe and presented it to the family at the unveiling of her tombstone at Taupiri urupā.

Looking to the future, I have recently updated my fuming boxes, mercury pot and camera setup in order to be able to shoot a larger format (that of whole plate, which is 6.5 × 8.5 inches). To me, this is the largest practical conventional format for the daguerreotype; beyond that, reflections make viewing difficult, especially if the image is hand held. Modern daguerreotypy is at an exciting turning point, and in organising the ImageObject event I hope to expand its popularity at a time when mainstream photography continues to move even further away from its origins.

Essay

STAGING THE MEDIUM IN BEN CAUCHI'S THE EVENING HOURS

Kevin Fisher

This essay was provoked by the 2012 retrospective of Ben Cauchi's photography: *The Sophist's Mirror*, and the subsequent book on the artist titled *The Evening Hours*.¹ The images were produced using the collodion wet plate method, which originated in the middle of the nineteenth century, and they are fixed either upon glass (ambrotypes) or metal plates (tintypes).² Cauchi has been working with this process for over a decade. The content of his images vary among studies of objects and anatomy, non-descript interior and exterior spaces, tools of the artist's trade, and self-portraits of the artist. Many of the images (and their titles) involve overt and subtle references to phantasmagoria, such as the levitation of objects and practices of alchemy.