
April 28, 2011

The residency program opened on Monday, March 7th, 2011 and closed the morning of March 31st, 2011. From my point of view, it was a resounding success. I thank Dr. Christian Veillet most sincerely for his permissions, access to personnel and physical plant, studio and housing accommodations, technical and other supports and transportation to and from the telescope as well as his initial and continuing encouragement for the residency proposal itself.

I had hoped to follow up on themes and narratives I had first noticed in December 2009 and, as with all good residencies, I found so much more! Not only was I able to gather a wealth of information but also the CFHT staff were open, kind and polite to me even as they were also perhaps skeptical and curious about the residency.

Having kept daily notes, I will be setting up a blog about the experience in a few weeks (cfhtartresidency.wordpress.com). What follows is primarily a description of the various artistic ongoing projects borne out of the residency period.

Head of CFHT’s in house machine and carpentry shop, Roger, was kind enough to help me move furniture and staple gun plastic sheeting over an entire office to make it into a studio, including the carpeted floor. The second day of the residency offered the chance to go to the summit with an engineering/software team and observe the changes needed to switch the observatory from day to evening observations. A fantastic experience, I logged over 4 gigabytes of photographic notes as well as sketches. The engineers, software people and technicians were all very kind in allowing me access to everything at the telescope. They were also very solicitous in watching over me, as I was a neophyte at working at altitude. In the office the next day, I was kindly provided with access to the web and the internal colour printer -- many thanks to Ferd from the Software Department, who set everything up.

Over the first week, the focus was on the two visits to the summit and organizing the visual information. As well, I prepared a short talk about my past work and what I was interested in exploring during the next weeks. During this talk (March 14th, Monday) I explained that I did not wish only to take from CFHT but also offer art experiences to the staff. Dialogues between the worlds of art and science, I described the four art exercises open to anyone who wished to participate: Sumi-e (Japanese ink brush painting of classic characters), Shodo (large scale sumi-e), Cyanotype Sun Printing (using our own nearest star to make art prints) and Continuous Landscape (five people divide a 360 degree view and draw it continuously in five booklets). These were all chosen as artistic activities which are creative, enjoyable, fast, easily mastered and not taking up too much time. As well, the participants would be creating work that could be displayed at the Open Studio Exhibition and then kept for themselves. Although these activities were slow to catch on, by the end of the residency there were over thirty participants in the
various exercises and everyone seems to have enjoyed their experiences. The art exercises were invaluable as another way to get to know the CFHTers.

As I gathered material, both photographs and sketches, several projects were born. The following is a brief description of each one.

**Two Mountains Project**

This was the first project I tackled -- it came to me in a dream after seeing the telescope over a year ago. In this dream, I saw Mauna Kea as a sacred place and realized that the telescope is sanctified also and the knowledge of the world has been expanded through the dedication of the scientists and engineers who solved the myriad problems posed to them over the decades. I saw their math, their code and their ideas from scientific papers gleaming from the rock surfaces of the mountain. The duality of daytime and nighttime versions of the view of the observatory represent the day and night observations of the telescope.

The paintings are in acrylic and I was able to complete the under paintings, initial sketches on canvas and obtain several quotes from CFHT staff. I hope to get the rest of the quotes from CFHT and I look forward to hand lettering the quotes in gold leaf onto the rocks of the mountain within the painted landscapes. The first quote, which I recall from my dream, was something Dr. Veillet said to me when we first met in 2009. I had asked about his management style and he had responded that 'it took awhile to get them to see a problem as an opportunity.'

**Silver Sword Project**

From my first visit to Mauna Kea, these amazing plants fascinated me. They are very sculptural and look like a very primitive plant species. Dr. Sarah Simblett of the Ruskin School of Art at Oxford has reconstructed a medieval ink recipe used by Michelangelo and da Vinci. It called for scrapings of fireplace brick soot and fermented wine dregs from red wine. I worked on collecting these elements for several months in Vancouver and brought them bottled, to Hawaii, where I added the final ingredient, the dead, dried and pulverized leaves of the Silver Sword itself. Dr. Veillet had instructed me that as these are valuable and protected plants, they cannot be stripped of their living leaves but any dead leaves on the ground were allowed to be collected. (Thank you to the engineering team who spent ten minutes rapidly collecting dead leaves with me at the site of the silver sword plants behind the visitor centre near Hale Puhaku).

Once I had my special ink made, I used classic Japanese ink brush sumi-e techniques to create images of the silver sword. I used some of the leaves tied together as brushes for some of the work. I used specialty papers and also other inks from Kyoto and Nara, Japan.

**Personal Mapping Project: The Stars brought Us Here**
With the birth places and the names and pictures of CFHT’s staff, I can create a collage/mosaic through photographs, maps and painting of the global aspects of the work done at CFHT. Not only is the astronomy and imaging brilliant but also the Telescope has always been internationally focused on attracting the very best scientists working on the most exciting projects from all over the world. If CFHT ever does find life on other planets, I’d be willing to bet that those life forms, if they were highly intelligent, would be signed up for telescope time before anyone else got to them. At the outreach committee meeting it was quite clear that those working at CFHT were envied by most of the other personnel at other Mauna Kea observatories. This is a tribute to the manner in which CFHT is run and its human corporate culture. Several of the CFHT staffers I interviewed spoke very highly of those in other departments. It is obvious that there is mutual respect between the various specialty departments at CFHT.

Along with the CFHT staff, I will be including the first stargazers to arrive in Hawaii: the Polynesian navigators. The stick charts representing star patterns used for navigation by these people hundreds of years ago will be included in the final work along with other mapping techniques.

Petroglyphs Project: Images from the First Star Gazers

It is astonishing how little is known about the pre-contact petroglyphs on the Big Island. Research is revealing some elemental points but overall they continue in their mystery and beauty. Again, this is a link to the earliest stargazers on the island of Hawaii. I have used sumi-e and shodo techniques to lay down textured backgrounds for prints of these images. I was careful not to make rubbings of the actual stones as I was warned that this could lead to degradation of the incised images on the rocks. So, I turned to images via my camera once again and drew from the photographic images. I have added charcoal and gold leaf to the final prints.

Portraiture

I honestly cannot imagine CFHT without seeing the faces of those who keep it going day in and day out. The faces of astronomers and software people and engineers yes, but also the intelligent faces of the administrative and technical staff.

It is not the easiest introduction to another human being to jump into their office space and start taking pictures of them and their environment. I have to commend the staff, which had been warned by Dr. Veillet, that I would be poking around in their spaces. Everyone was courteous in the extreme and several took the time to ask about the residency and how things were progressing. I was welcomed to Grant’s one o’clock coffee club and even invited out to sample loco moco at the Pakini Grill. In short, everyone treated me as a fellow employee.
I wish to push the boundaries of conventional portraiture by integrating tangible elements representing the work of the person in each portrait. This project is barely begun, with a handful of fairly conventional sketches of some individuals. I will continue to work with my photographs as reference material on this project.

**Human and Machine**

This was one of the big revelations of my time at CFHT. For some odd reason, most people, including myself, when they envision an observatory, consider only a person, an astronomer, looking through a telescope. But the telescope itself had to have been manufactured by engineers, transported up the mountain by other engineers, kept maintained and operational by troops of optical and mechanical and electrical engineers and those engineers get up close and personal with the machines they are required to maintain. They dangle hundreds of feet in the air in iron cages, adjusting the complex array of optic cables running around the telescope itself. They carefully test out software suites for the observers, and work on making complicated switches easier for those who have to use them. And they LOVE what they do! Every new problem is just waiting to be solved. From situations, which would break lesser people, the CFHT engineers, software specialists and other technicians wade right in, get dirty and fix it. And they do so using 40 percent less oxygen up at the telescope a lot of the time. I found it so heroic and on a human level, quite moving.

I took hundreds of photographs of the technical teams at the summit and also images of engineers and their worktables and computers down at the offices in Waimea. I will be using some of these pictures as reference material for paintings and drawings.

**Still Life Project**

Much of the texture of the lives of the scientists who comprise the CFHT Corp. can be gleaned from the smallest details of the engineering or the tools of the place. The warmth of the pantry in the kitchen lounge in the observatory or the slightly jumbled array of hard hats used by technicians and other personnel when they are roaming all over the internal systems of the telescope -- these small details contain a wealth of information about the life of the telescope. I hope to work on drawings and paintings of these details in the months ahead.

**Night Observer and Visual Studies of Electricity**

I obtained some excellent photographs of night observer, David Woodworth in the control room at the offices in Waimea. At one point during the evening, while
David sorted out some technical details, he said, "unless I pay attention right now and confirm our focus, we could be spending thousands of dollars of science on the wrong star!" So, I gave David the space he needed and I wandered over to the door separating the computer room from the control room. In the darkness, various lights leapt out and I slowed down the shutter speed of the camera to create a dramatic image. As well, I experimented with 'drawing' with the light by swinging the camera in arcs to create swathes of electric colour in abstract patterns. These patterns were transferred to chalk drawings and then acrylic paintings, some of which were completed during the residency period.

**Conclusion**

I was honoured to be the first Artist-in-Residence at the Canada France Hawaii Telescope and I hope to return to show everyone the completed art which will emerge from this program. I wish to donate some of the finished art to CFHT as a gesture of thanks. I would hope that CFHT might consider the future possibility of inviting other artists to their environment with the wish that this would continue to enrich a place and a people I have come to respect, appreciate and love.