



*Maria Coryell-Martin learned in first grade that 'a creative person is never bored,' and she lives by that principle. After graduating from Carleton College in 2004, Maria spent a year living and painting in remote communities—French Polynesia, Tibet, and Mali—courtesy of a Thomas J. Watson fellowship. Everywhere, she worked on her independent project, "Ties to the Lands: Investigating Remote Regions Through Art." During the late spring of 2005, she ventured to Greenland. In the following mini-memoir, she describes her experiences there, including a whirlwind visit to Summit Station courtesy of the National Science Foundation.*

I arrived in Greenland in April of 2005 feeling dazed. A week earlier I had been living with a family of semi-nomadic Tuareg herders and traders in the bush of Mali, West Africa. This was my first time above the Arctic Circle, though not my first encounter with ice. Daughter of oceanographer and geophysicist Seelye Martin, I grew up with stories of the Arctic and dreams of northern light and ice. Later, I participated in the Juneau Icefield Research Program in SE Alaska, both as a student and artist-in-residence, which further cultivated my affection for and desire to understand glacial and Polar Regions. By the time I set foot in Kangerlussuaq, I had realized myself as an "expeditionary artist," resolving my interest in art, science, and the

outdoors by traveling to remote regions to witness and record environments in the midst of climate and social change.

The assistant-manager of the Kangerlussuaq International Science Support (KISS) facility kindly met me at the airport and gave me a short tour of town. I had few concrete plans, having discovered that opportunities would present themselves to me if I remained open. My friend Kristin Laidre, senior scientist with the Greenland Institute, who had supported me in Copenhagen between Mali and Greenland, had invited me to visit Arctic Station on Disko Island in May. Otherwise, I was curious as to where my art would lead me.

After settling into KISS, I wandered around the first floor of the building, hoping to make some friends. I developed a sense of the international community. People from all domains were represented: scientists, electricians, carpenters, drillers, a lab technician, a Venezuelan helicopter pilot, and more. There were even two independent teams of diamond hunters in town to prospect sites south of Kangerlussuaq!

The climate was a shock as I was still adapted to the desert heat of Mali (where temperatures had been upward of 100° F). I explored the local region well protected by multiple layers and a colorful Tibetan fur hat. Sketching rapidly in the cold, I built up a small portfolio of work. During heavy snow, I wandered over to the Air Greenland hanger and drew airplanes, enjoying the subject and considering that anyone involved with planes might lead to adventure.

People were curious to meet an independent artist and interested in my work. At KISS, I met Robin Abbott, VPR's Greenland logistics manager. Robin spoke to me of Alaskan artist David Rosenthal who had recently worked at Summit Station for a season as a science technician and artist. Inspired by the artistic precedent, I

submitted a proposal to NSF to visit the icecap. Soon thereafter, NSF granted permission.

While waiting to visit Summit, I continued to sketch, locally and at both diamond-prospecting camps to which I was generously invited. I worked fast as ice crystals often formed on the surface of my paper and my fingers grew numb (later I grew adept at working with gloves on). I developed my palette



*Maria's tonal study of a Twin Otter.*

of place as I became familiar with the colors, temperatures, and subjects through my explorations. With a shorthand style of sketching, I often worked on a cool blue- or brown-toned paper with pen and white gouache (an opaque watercolor paint) and completed watercolor studies indoors.

In early May, about three weeks into my visit, the 109<sup>th</sup> division of the New York Air National Guard with their C-130 Hercules roared into Kangerlussuaq. I packed my bags and donned insulated Carhartt overalls and big boots on loan from VPR. Boarding the C-130, I felt excited to be in a non-civilian aircraft for the first time and looked around the dimly lit interior at the loading palletes and small porthole windows. After two hours, we touched down on ice. I walked outside into the stinging cold air and noticed a ring around the sun. Familiar faces from the previous weeks in Kangerlussuaq met me with wide smiles.

Science technician Katie Hess welcomed me, explained some rules and regulations, and helped deposit my gear at Swiss camp, the weatherport



Matteo Kuizenga helps out in Denver while mom takes meetings. Photo: Susan Zager

## ALASKA News

Our Alaska team spent April in the warehouse and the office readying support for the coming wave of researchers. Inventory, helicopter contracts, support plans and schedules all got their attention. Matt Irinaga joined Roy Stehle in attending and assisting with training for the new group of teachers participating in the Teachers and Researchers Exploring and Collaborating program (<http://www.arcus.org/TREC/index.php>). Naomi Whitty and Marin Kuizenga worked in Denver for a week. The team also supported a number of researchers in the field in Alaska.

Henry Huntington passed through Fairbanks last month en route to joining the GoNorth! dog sled expedition in Arctic Village for his traditional knowledge research. [http://vecopolar.com/arlss\\_reports/arlss\\_projectsdetail.asp?cbPropNum=0505736](http://vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0505736)

Doug Kane's river watershed researchers flew out of Toolik Field Station 23 – 29 April collecting hydrological and meteorological data for their study of the Kuparuk River basin.

[http://vecopolar.com/arlss\\_reports/arlss\\_projectsdetail.asp?cbPropNum=0335941](http://vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0335941)

A crew with the Donald Walker frost boil study worked at Toolik and Prudhoe mid-April.

[http://www.vecopolar.com/arlss\\_reports/arlss\\_projectsdetail.asp?cbPropNum=0120736](http://www.vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0120736)

Paddy Sullivan hauled gear into his Agashashok River research site by snowmobile toward the end of April for his study of tree growth controls. He'll return this month to begin nutrient and water manipulations.

[http://vecopolar.com/arlss\\_reports/arlss\\_projectsdetail.asp?cbPropNum=0528748](http://vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0528748)

## INTERNATIONAL News



Japanese colleagues at NPEO deployed a new Polar Ocean Profiling System (or POPS) buoy, and were pleased with the quality of the ocean temperature, salinity, and depth; and atmospheric pressure and temperature data they were getting from the instrument. NPEO researchers, l to r: Keith van Thiel, Jamie Morison (both from University of Washington), Jun Inoue, Takashi Kikuchi (both from Japan Agency for Marine-Earth Science and Technology), Kevin Parkhurst (University of Washington), and Tim Boyd (Oregon State University). Photo: IORGC/JAMSTEC

North Pole: Ice station Borneo saw a flurry of activity from researchers with the Jamie Morison-led North Pole Environmental Observatory from mid-April on. In addition to the POPS deployment, researcher teams retrieved, serviced and redeployed their instruments; collected water and snow samples; and made airborne hydrographic surveys. Read the team's field reports at

<http://psc.apl.washington.edu/northpole/NP2006Reports.html>.

View POPS data online at

<http://www.jamstec.go.jp/arctic/SCOSA/>.

At month's end, the NPEO teams had left Borneo and were en route home. Researchers with the Mike Steele-led collaborative studying the "Freshwater Switchyard" of the Arctic head to Borneo next week for their experiments.

[http://www.vecopolar.com/arlss\\_reports/arlss\\_projectsdetail.asp?cbPropNum=0230427](http://www.vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0230427)

Elsewhere on the international scene:

The Giff Miller team arrived on Baffin Island last week to begin a four-week sampling trip for studies of the ice caps.

[http://www.vecopolar.com/arlss\\_reports/arlss\\_projectsdetail.asp?cbPropNum=0454662](http://www.vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0454662)

# GREENLAND News

A C-5 airplane full of cargo for the deep drill (“DISC”) test at Summit and other early season science and resupply items arrived in Kangerlussuaq on 18 April. The huge plane was the talk around town, and may even have been on the news in Ilulissat. Folks spent the next few days staging the cargo for onward shipment to field sites.

The Air National Guard 109<sup>th</sup> roared into Kangerlussuaq and then, after weather delays, got skis down at Summit Station with 23 people and lots of cargo on Sunday, 23 April. Six more flights over the next three days got us close to caught up, and the guard took advantage of a good weather window at week’s end, keeping two planes in Greenland for an extra day, to finish the tasking.



*Land shark: It took 4 hours to unload 150,000 lbs of cargo from this C-5. Photo: Ed Stockard*

On Monday, 24 April, the Neumann/Catania field team arrived at Swiss Camp. Weather there and at Camp Raven was unusually cold, with temperatures dipping below  $-30^{\circ}\text{C}$  at night and katabatic winds blowing off the ice cap. Work was difficult for the team and their skidoos under those conditions.

[http://vecopolar.com/arlss\\_reports/arlss\\_projectsdetail.asp?cbPropNum=NASAMELT](http://vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=NASAMELT)

Last week, Yongsong Huang’s “mud-suckers” project had a very successful week using the Air Greenland helicopter to core the bottom of lakes located between Kangerlussuaq and Sisimiut. The researchers accompanied numerous boxes of mud core samples back to New York on Saturday the 29<sup>th</sup>.

[http://vecopolar.com/arlss\\_reports/arlss\\_projectsdetail.asp?cbPropNum=0520718](http://vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0520718)

Our Kangerlussuaq staff also provided support to other researchers: CryoSat 2 ground-truthing teams at T12 and T05, Koni Steffen’s AWS team, and the Tom McGovern archeology team.

## Summit Station

Our hats off to a remarkable Phase 3 team! Per manager Kathy Young’s reports, the team worked tirelessly to ready the station for spring research. On Easter Sunday they paused to enjoy a turkey feast, lingering at the table to trade stories and laugh at how “transitions from this work back to the world at home can be tough and humorous all at the same time.” For some, that transition period came a week later when the ANG brought 20 fresh folks to Summit, and carried out Kat Huybers and Julia Jarvis (both of University of Washington) and Dan Simon (NOAA). The population at Summit is now in the 20s, with a significant number preparing for the DISC drill test. Those operations are scheduled to start this month.

[http://vecopolar.com/arlss\\_reports/arlss\\_projectsdetail.asp?cbPropNum=0230396](http://vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0230396)

## *The ‘Subdued Arctic’*

Working with the Norwegian Polar Institutt this spring near NyAlesund, Svalbard, Norway, Bob Hawley and I have been studying the Kongsevegen Glacier for satellite validation and chemical transport studies. The weather’s been a challenge, often being too warm to allow for snowmobiling to the ice. Still, though the cold seems absent, the Arctic light persists.

—John Burkhart





*Maria's Summit Station landscape.*

where I was invited to sleep. Light-headed and tired from the travelling and change in altitude, I nonetheless made a few sketches, captivated by the quality of light. The air was literally shimmering with ice crystals.

VPR construction manager Billy Texter later gave me a thorough tour of camp and I learned the daily details of living on the ice: where energy, water, and food come from, as well as the range of science and operational projects in process. He showed off the gleaming new solar outhouse as well as his recent find: Under the Big House, dangling from thin threads, were delicate ice crystals that would spin gently with a breath of air. I continued my simple sketches, abandoning use of my watercolors outdoors as they froze instantly, despite the vodka I had added to lower their freezing temperature.

I headed to the cozy Big House for meals and was impressed by the spread. After months of travelling and living a third-world nomadic existence, I could hardly believe that American bagels, cream cheese, and Oregon Chai tea were available to me, much less on the Greenland ice sheet. We capped a dinner that included fresh salad with homemade ice cream, the cream cooled and mixed with liquid nitrogen. The kitchen (and we diners!) profited from a science project.

After dinner, folks headed outside to stretch out and play some Frisbee. I made a few passes and then walked up the large berm behind the Big House to sketch the evening light. Looking out across the expanse of flat ice, I marvelled at the existence of Summit Station in such a formidable and inhospitable environment. Isolated science-oriented camps resonate with me. Their self-selecting nature creates a community of people who seem not only to enjoy their work, but who also delight in their surroundings with infectious energy.

The next day, I was back on a Hercules that shook and roared as we left the ice, using rocket-assisted take off. I was sorry to leave so soon, but grateful to have explored the environment and to have felt such enthusiasm from everyone I met. When I got back to the KISS center, VPR staffer and polar legend Lou Albershardt strode up to me and said, "Now you understand why we all get these big goofy grins on our faces when we talk about the icecap. And why we can't wait to get back up there." Yes, I do. As an expeditionary artist with a passion for ice, the Polar Regions beckon.

—*Maria Coryell-Martin*

To view more of Maria's work, visit her website:

<http://www.maria.coryellmartin.org>

For more about the Watson Fellowship, a one-year grant for graduates to study abroad:

<http://www.watsonfellowship.org/site/index.html>

## **SCIENCE & Other News**

The Smithsonian natural history museum this month opened two exhibits exploring environmental changes in the Arctic, and their impacts on people living there:

<http://www.cbsnews.com/stories/2006/04/11/ap/tech/mainD8GU15KGF.shtml>

NOAA has a new webcam at the North Pole.

[http://www.arctic.noaa.gov/gallery\\_np.html](http://www.arctic.noaa.gov/gallery_np.html)

NY Times science writer Andy Revkin sums up the global climate change situation, and suggests why it is so hard for humans to get excited about the problem.

<http://www.nytimes.com/2006/04/23/weekinreview/23revkin.html>

NSF-funded researcher Carin Ashjian reports that scientists aboard the USCGIB Healy in 2004 observed abandoned baby walrus in unprecedented numbers, causing concern that shrinking sea-ice may be impacting the walrus' ability to care for their young. <http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2006/04/15/warming115.x>