

ESCAPE TO THE ARCTIC

A Virtual Field Trip to Greenland

Fall 2021



<http://www.kathryngrowallen.com/virtual-field-trip>

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What is a 'Virtual Field Trip' to Greenland?

August 4, 2021

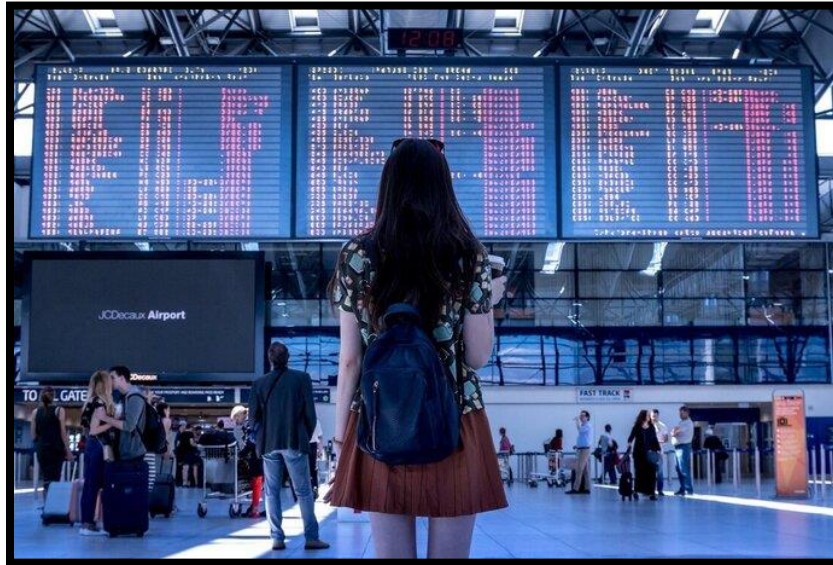


Study abroad and international travel came to a screeching halt in March of 2020. Fall 2021 is not looking much better for these life-changing student opportunities, as many schools have delayed traditional study abroad out of concern for student well-being and the inability to plan around an unpredictable pandemic.

Even if planned programs rebound this spring, many students will still be unable to go. Some can't afford it. Others will have ongoing concerns for their health. And many students juggle significant life responsibilities. These responsibilities can include parenting children, taking care of older loved ones, full-time jobs with limited leave, and medical conditions requiring regular interventions. Pandemic aside, a study abroad trip or major international adventure is not accessible to everyone. There is, and will continue to be, a need for virtual international exposure. In a recent [joint statement](#) from the Department of State and Department of Education, the Federal government renewed U.S. commitment to International Education. Included as a priority are actions to *"promote expanded access to international education, including through the use of technology where in-person experiences are not feasible."* We need these.

I will be the first to admit a virtual international experience is not the same as planting your feet on the soil of a new country. Little can replace what you learn as you struggle to order food in a restaurant or hold up the grocery store line after failing to weigh your produce correctly. It's hard to replace the feelings of triumph when you master a foreign public transportation

system, figure out how to mail a letter at a post office, or get mistaken for a local by a tourist. These experiences do more than give us great stories to tell, they broaden our mind to the world. They expand capacity to collaborate with those different from us and they increase awareness of global concerns. However, while virtual international experiences are not a replacement for in-person ones, they are an excellent replacement for *no international experience at all*. Because of this, many college systems are investing in diverse virtual international programs (like [these](#)). I've decided to throw my hat into this ring; however, I am going to structure mine a bit differently.



After two months of coursework this fall, I am flying to Greenland to deliver a virtual field trip to my applied anthropology students. This project won't be executed alone. I am teaming up with some amazing project partners (more on [Alice](#), [Hans](#), and everyone else making this possible soon)! The goal is to feed students constant, diverse content (live-streamed interviews, videos, photography, blog posts, and more) to provide unique access to this Arctic country. Some of the things this content will expose them to include:

- The research meetings in the capital for [Greenland Science Week](#)
- Cultural events in a smaller city inside the Arctic Circle
- Life on a remote island settlement only accessible by boat
- What's going on at the newly established [UNESCO world heritage site](#)
- The work of collaborations like [Activating Arctic Heritage](#)
- The challenges faced by the cultural institutions protecting Arctic heritage
- The role of digitization in research
- Archaeology's race against the clock in face of climate change
- The status of Greenlandic tourism (and science tourism)
- The complexity (and ethics) of working as an international researcher
- How the synthesis of different fields can find unique solutions to global issues

-and much more.

In addition to following along with the content, my students will be asked to answer surveys (*“what aspects of life in the Arctic would be hardest for you?”*) and journal regularly on critical questions (*“Consider the pros and cons of increased tourism for Greenlandic communities?”*). Likewise, they will use anthropology as well as knowledge from different career paths they are each pursuing to design their dream impact project.

I am excited to bring this experience to my applied anthropology course at SUNY Potsdam, but I don't want to stop there. I am using this open-access website to host the content so that others can join us. Please, if you are interested, participate in any posted questions, surveys, or project-building! Or just read, watch, and experience from the comfort of your home. I can't wait to explore this remarkable country and bring it home to you all.

Stay tuned!



The Team

October 1, 2021



Time to introduce the team. There will be plenty of new people to meet when I get to Greenland, but these individuals should be highlighted from the start. There are four main team members. These are the professionals making the work connected to the virtual field trip happen:

Alice Watterson, PhD: Alice is an archaeologist and digital artist based at the University of Dundee in Scotland. Alice works as a lecturer and researcher with the University's 3DVisLab. Her work shows how powerful a synthesis between diverse fields can be, as she pulls from art, archaeology, and computer science to produce technologically advanced, community-focused heritage initiatives. For an example of her past work, take a look at this [digital archaeology computer program](#) she co-produced with an Alaskan community on the Bering Sea coast. This award-winning initiative launched an interactive software allowing school kids (and the public) to explore the history, stories, and language of an indigenous Yup'ik archaeological site. Needless to say, Alice is the kind of person who makes you hate your day job. It's normal for her to close a team conference call saying something like *"I'm off to the Orkney Islands to fly drones around ancient Neolithic ruins"* (my response: *"well, I'm going to watch Blippi with two toddlers. So I have a fun day planned too..."*).



Hans Harmsen, PhD: The second team member will also make some cringe with day-job envy. Hans is an American expat stationed in Greenland for the past five years working his magic on a dizzying number of archaeological and anthropological projects. He never stops moving. He puts incredible effort into work aimed at understanding, monitoring, studying, and sharing Greenlandic history (in the face of drastic environmental changes, I might add). Hans is an archaeologist and the National Heritage Resources Manager at the Greenland National Museum and Archives. He also serves on many arctic science and archaeological advisory boards (for example, Iceland’s NatNorth sub-project III: Cruise ships taking land, Society for American Archaeology Committee on Climate Change, the Aasivissuit–Nipisat World Heritage Steering Committee, and more). It’s unsurprising to receive an email from him opening with something like *“greetings from Qassiarsuk, site of Erik the Red’s farm!”* (the Viking that named Greenland) (me: *“Sounds amazing, Hans. Coming back at you from the peanut butter aisle at the Price Chopper”*).



Charlie Sarkioglu: I am lucky enough to have an amazing SUNY Potsdam undergraduate student serving as a content manager. Staying back in Potsdam, Charlie will be managing the content produced in Greenland to help with fast turnaround for the Virtual Field Trip. We are already hard at work figuring out the best technology and ways to engage everyone over the two-week trip. Charlie is an archaeology major and anthropology minor set to graduate this December. While traveling as a performer in a variety of professional theatre productions for over 10 years, Charlie developed a profound knowledge for engaging diverse audiences. Travels throughout the US, Canada, and Japan, along with a prior business degree, add to Charlie's capacity for assisting with international project management. In the future, Charlie plans to explore ways to link bioarchaeological and human origins knowledge with educational theatre for young audiences.



Me (Katie Grow Allen, PhD): For those coming here from outside my circle of friends, family, and students, I'll take a moment to introduce myself as well. I am an applied anthropologist in the Department of Anthropology at SUNY Potsdam in northern New York. My work in archaeology, biological anthropology, and applied anthropology is centered on the relevance of these fields to solve contemporary issues. I've worked in online education for over 12 years and am ecstatic for this experimental approach to virtual learning (quite different from any online teaching I've done in the past...). My anthropological research has focused on subjects in Southeast Europe (Romania, Croatia, and Hungary-my favorite places) but I am now diving into the Arctic as well. I will also mention my position at SUNY Potsdam is funded by the PRODiG Fellowship. This program was started by the State University of New York (SUNY) to fund early career professors who are either minorities in any academic field or Women in STEM (I'm the latter). Because I am also a MOTHER in STEM, you will hear me talk about my kids and experiences as a parent. Juggling my career ambitions while having my sons has been a challenge. I hope students who might pursue STEM fields or ambitious careers in ANY industry will find it helpful to see what it can look like to juggle work and family.



While we start as a team of four, many others will make this idea a reality. When I get to Greenland, I'll introduce other collaborators, including the Greenland National Museum & Archives (Nunatta Katersugaasivia Allagaateqarfialu), the Sisimiut Museum (Sisimiut Katersugaasiviat), Aasivissuit-Nipisat UNESCO World Heritage Area, the United States Consulate to Greenland, and the Greenland Science Week Team. So many great people whose work will be shared.

The Money.

October 5, 2021



Time to talk money. No matter how little we eat while traveling (does Greenland have Ramen Noodles?) there is no way to get there without funds. Luckily, we have support from three places. Here is a brief glimpse at the organizations making this trip financially possible:

The Loughheed Center for Applied Learning (LoCAL) at SUNY Potsdam: When I arrived at SUNY Potsdam last fall, I was introduced to an amazing resource on campus. Built with a generous donation from the Loughheed family, Potsdam's LoCAL funds experiential learning. I quickly targeted their faculty grants and was awarded travel funds to get to Greenland for this experiential eLearning opportunity for SUNY Potsdam students.



The University at Dundee's RS1 Research Funding: With my travel covered, Alice now needed to find travel funds from Scotland. Her university has an internal small grants program which offers seed-funding to help researchers develop early-stage project ideas or attend conferences and networking events. She was able to secure funding to cover a portion of her travel and accommodations this way.



The United States Consulate Nuuk: After a fortuitous meeting between the team member in Greenland (Hans) and the US Consulate in Nuuk, we were made aware of a grant program designed to give *“support for artistic and cultural performances, educational initiatives and non-governmental organization (NGO) projects whose aim is to promote and deepen the understanding and appreciation of American foreign policy and culture.”* We applied and were thrilled this summer when they awarded us the grant. These funds allow us to expand our original plans into new places as well as hire a local translator of Kalaallisut (the West Greenlandic language) during our workshops.



As with all research, securing the funds to do something like this is vital. Without the backing of these institutions, our ideas would remain mere words on a page.

The Itinerary.

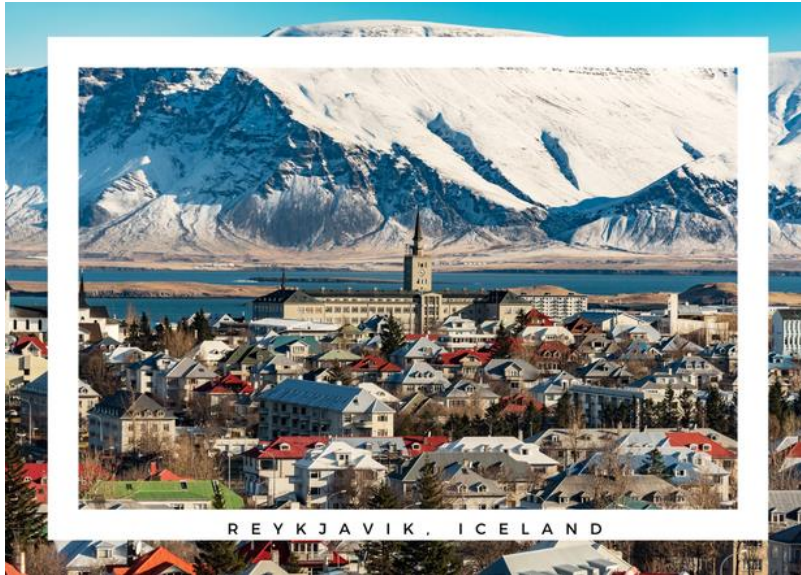
October 7, 2021



As you can see from this graphic made by my student and content manager, Charlie, the itinerary is taking shape! Everything has to be ready to pivot at a moment's notice given health conditions and the weather. November in Greenland is fair game for winter storms. But... here is where we stand:

October 28th, 2021: I fly out from Logan International Airport in Boston on an overnight flight to Reykjavik, Iceland. There are no direct flights from the United States to Greenland, you enter through either Iceland or Denmark. This stopover is also necessary for health screening requirements. Currently, all travelers to Greenland must be vaccinated and tested (PCR) within 72 hours of flight. They only accept test results obtained in Nordic countries.

October 29th, 2021: I touch down in Iceland, the land of snow and ice, around 6am* local time. I meet Alice bright and early...and for the first time in person! While there will be testing upon arrival at the airport, the PCR test (and paperwork) needed to enter Greenland must be completed at a separate health facility in Reykjavik, the capital of Iceland. We'll spend the night to allow time for this.



October 30th, 2021: A late afternoon flight from Reykjavik takes Alice and I to Nuuk, the capital city of Greenland. Given its latitude, my first glimpse of the country will most assuredly be in darkness



October 31st-November 1st: After feeling sad about missing Halloween with my kids, I'll cheer up by exploring Nuuk. Alice and I meet up with Hans and others at the Greenland National Museum as well.

November 1st: Alice, Hans, and I fly to Sisimiut, the city hosting the first week of Greenland

Science Week. The only way to travel inside Greenland is by plane (there are no roads between cities), so flying to the second largest city requires another flight. When we touch down, I'll step inside the Arctic Circle for the first time.

November 1st-8th: We stay in Sisimiut for the week. We are hosting workshops (more about these soon), giving research talks about digital heritage and virtual learning, and meeting folks from the Sisimiut Museum, the UNESCO World Heritage site, and others. These events run alongside other small-scale community events as part of [Greenland Science Week](#). At some point during the week we plan to travel to Sarfannguit as well. This community is only accessible by boat ride through the icy waters of one of the country's fjords.



November 8th: We return to Nuuk.

November 8th-November 12th: The second week of Greenland Science Week is hosted in the capital. Here, more events online and in-person will share current scientific and cultural projects focused on Greenland. While we have some work to do this week as well, I am excited to be in the audience for other presentations. As Greenland Science Week is meant to be a *"platform for dialogue between researchers, business, management and citizens,"* I look forward to bringing you all into the conversation as well!

The time to pay attention to Greenland is now. By the end of the trip you will see why. No matter how this itinerary finalizes, my hope is that the virtual field trip exposes you to this incredible place and its vital position in our world.



**A note about time zones: this trip happens during a very confusing time of the year. At the beginning of the trip Greenland will end daylight savings...one week before the US does. Meanwhile, Iceland doesn't participate in DST at all. If I make an error in translating local times...this is why!*

Thoughts on Virtual International Learning

October 11, 2021



There is a growing need for virtual international learning (or ‘virtual study abroad’). I’ve recently found myself thinking a lot about remote ways to connect people from different cultures. Where could large-scale virtual international learning make an impact?

Here are a few thoughts on why I think virtual international programs should be the norm rather than the exception for students. Note: I use the word ‘student’ loosely. I don’t believe you need to be enrolled in a higher ed institution to consider yourself a student. When we hear the word ‘student’, we often think of [this first definition](#): “a person who attends a school, college, or university.” But let’s not forget the other definition of student: “a person who studies something.” There are many brilliant students who never go to college. There are some college attendees who never become true students. When I was thinking through these ideas, I imagined participants both inside and outside of traditional classrooms.

Virtual learning to replace no international experience at all: As I mentioned in my [first post](#), in-person international travel and learning opportunities are not accessible to everyone. Some students have major barriers to boarding that international flight. Money, kids, medical conditions, and significant life responsibilities ground many people. A pandemic will ground many people. So while in many ways virtual international experiences don’t replace in-person ones, they make an excellent replacement for *no international experience at all*. For those who cannot travel, a virtual opportunity is an amazing replacement.

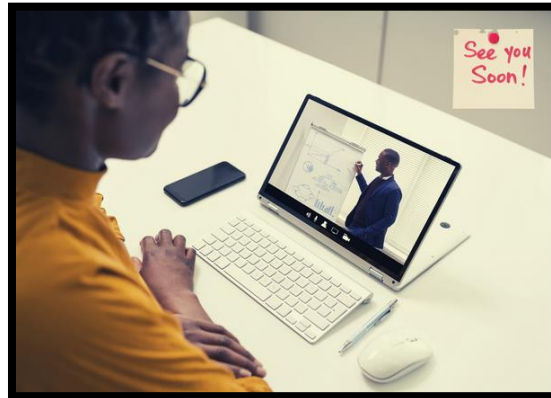


Virtual learning to prepare for in-person international travel: what if every study abroad student could take a short virtual learning course before they traveled? My own (and many other) study abroad courses prepare participants logistically. Orientations focus on when to catch your flight, what to pack, and how to secure a visa. These orientations can offer little to prepare a student culturally, socially, or linguistically. What if culture shock could be curtailed for all travelers? Imagine the benefits of a language crash-course or an opportunity to virtually meet professors, students, or locals in an upcoming destination. What if everyone could attend virtual coffee hours to learn travel tips, cultural norms, and advice prior to departure? These programs could both prepare travelers for a better immersion into a culture, but also deliver more culturally sensitive representatives of a school, state, or country to a receiving culture.



Virtual learning to build hybrid opportunities: What if we combined forces? What if we designed more programs that included both virtual AND in-person international learning? Classes could start online with students from different cultures meeting each other and brainstorming virtually. The cross-cultural class could then come together to enact projects or continue learning outcomes in-person. The order could switch, with virtual learning modules coming after in-person experiences. We could keep networks, conversation, or projects moving forward long after travel. What if we designed entire degrees that connect students in different cultures not for a few weeks or a semester, but throughout an entire program or sequence of

classes? What could be the outcome of these longer-lasting international learning opportunities?



Virtual learning to promote intercontinental learning: What if we designed more programs that allowed students to connect not just with one culture or continent, but many? Those in the business world could experience project collaborations in multiple foreign markets, allowing them to identify where they might want to work when entering global industries. Students in medical fields could complete coursework on health and healthcare in many countries. Learning a globalized approach to medicine could improve care with diverse patients at home. With virtual learning, a year or more could connect students to three, four, five different cultures through subsequent programs completed back-to-back.



I am going to stop there but will likely return with more ideas later. There are many ways to build out virtual international programs designed for undergraduate students, industry professionals, kids, retirees, or anyone with a desire to learn. I can see programs being born already with these approaches at their core (I am not the first to have these ideas)...but we can and should do more. What if every single person had the opportunity to have a meaningful international learning experience, at least once in their lives? With virtual international learning this is not an impossible dream.

Survey: What Do You Know About Greenland?

October 12, 2021



One goal of this virtual field trip is to share what I am learning about Greenland. I am curious about people's current awareness. What is common knowledge and what are you discovering for the first time about this country? Without looking up the answers, please take the survey below. Feel free to leave a comment on your current knowledge of Greenland or what you want to learn more about!

One goal of this virtual field trip is to share what I am learning about Greenland. I am curious about people's current awareness. What is common knowledge and what are you discovering for the first time about this country? Without looking up the answers, please take the survey below. Feel free to leave a comment on your current knowledge of Greenland or what you want to learn more about!

The quiz questions are included below, but to take and submit your answers, participate on the website at: <http://www.kathryngrowallen.com/virtual-field-trip/survey-what-do-you-know-about-greenland>

WITHOUT LOOKING ANYTHING UP... do you know the answers to these questions?

* Indicates required field

Name *

Which continent is Greenland part of? *

- Europe Antarctica North America Asia

Which political entity is Greenland part of? *

- The United Kingdom The Russian Federation The Kingdom of Denmark The Country of Iceland The British Commonwealth

What percent of Greenland is currently covered in ice? *

Together, the Antarctic and Greenlandic ice sheets contain how much of the world's fresh water ice? *

- 25% 59% 72% 99%

Which country dug a secret Cold War military base 8 meters (26 ft) below the Greenland ice (where it remains today)? *

- The United States Denmark Russia The United Kingdom

Who were the first to live in Greenland? *

- The Vikings The Celts The Inuit The Swedes

Roughly how many people live in Greenland today? *

What is one thing you know about Greenland not mentioned here?

One Gift of International Travel Happens Weeks Before You Leave.

October 15, 2021



International travel offers many things: adventure, exposure to new cultures, once-in-a-lifetime experiences, and plenty of stories to tell your grandkids. But sometimes international travel offers us something even more surprising: a reconnection with home.

I am not one of those travelers who lands in a new country itching to explore. In fact, my first hours in a new place are often afflicted with something that surprised me when I first started to travel: homesickness. I am always struck with the sudden urge to go home. When this first happened, I thought it meant I wasn't cut out to be a traveler. Why pay so much money to go somewhere just to wish you were home?

As I got older, I started thinking differently about homesickness. Maybe that inevitable pull I feel when I've put substantial distance between myself and home could be recast in a new light. Maybe homesickness is actually a *perk* of international travel, not just a plight. For those who plan to travel far someday, this is both a warning and an encouragement. Don't be surprised if you have similar feelings. But don't let them discourage you from exploring the world.



Homesickness when traveling abroad is often linked to culture shock, the feelings of discomfort that come when you enter a new culture. You may be surprised to find how different things are elsewhere (I know I was). Not knowing how to do simple things can be stressful. One of my first trips abroad to Italy revealed my inadequacy in using foreign toilets. There were no standard toilets and I always found myself rooting around for a button, pull, level, or other device that might be used to flush. Once, I guessed horribly wrong. In the absence of a clear toilet flusher, I pulled a long string setting off an alarm system. I slinked out of the bathroom under flashing lights and piercing sounds...to some seriously disgruntled older Italian women who ran in to undo my mistake. I can assure you, feeling out of place in a new culture has benefits - it teaches you to be resilient, makes you more empathetic to newcomers in your own culture - but it also makes you homesick for the place where you can easily flush a toilet. I did title this post “one *gift* of international travel” however...so here is my argument for why homesickness is a gift and how it can arrive weeks before travel.



Above: me in Italy with roommates many years ago, before the dreaded toilet alarm event. Learning to grocery shop and cook in another culture is also a major learning experience fraught with much trial and error.

Homesickness can be recast as appreciation for home. Sometimes, we need to step outside our daily life to see what we appreciate about it. Nowadays, I anticipate the feelings of missing home weeks before I leave. I am feeling them now. In the weeks before travel, I notice things I might long for when I'm gone. I am currently appreciating mundane moments with my kids, the nighttime toddler baths and dinner clean-up less tiresome than usual. Each conversation with my husband, each night in my own bed, each morning with my coffee maker is appreciated a bit more knowing I will miss them in the weeks I'm gone. Knowing you will miss something helps you appreciate it in the here and now.



Above: I love my traditional American drip coffee, not something you can easily find in other countries. Adding a cup of water to an espresso is not the same.

Survey Results: Learning About Greenland

October 19, 2021



Thank you to everyone who took my survey assessing your pre-existing knowledge of Greenland! If you haven't already, [please take it](#) before continuing to read. Along with the answers, I've put together some charts that show trends in the first 100 surveys. As more come in, I hope to update these later to see if trends persist.

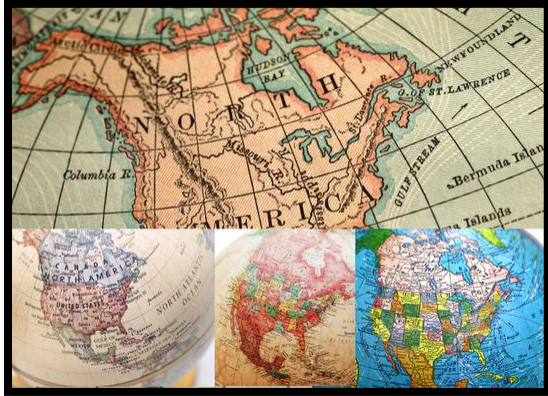
After taking the survey, many people reached out and expressed surprise at what they didn't know. If you got many (or all) of the questions wrong, you're not alone. This made me wonder, why is Greenland such a mystery to people outside the island? Let me be transparent though. I know many of the survey takers in the first 100 entries. Because of that, I know they are diverse in age, education, profession, travel experience, etc. They are *not* diverse in nationality. Many in this sample group are American-either by official citizenship or by circumstance. So perhaps my question should instead be, why is Greenland such a mystery to *Americans*? I acknowledge these results wouldn't hold up as a true scientific study. It would be interesting to expand the questions, seek a bigger sample size, and collect extensive background information. This might produce a more rigorous picture of familiarity with this country. But for now, this was just a fun survey to quickly gather a bit of insight into what readers know about Greenland. Here are the results:

Question 1: Which continent is Greenland part of?

Answer: North America.

Just over 50% of the first 100 surveys had this correct. Greenland is in fact part of the North American continent. In searching for stock images, however, I noticed its often missing on maps of North America (see below). Its absence on these visual representations of the continent,

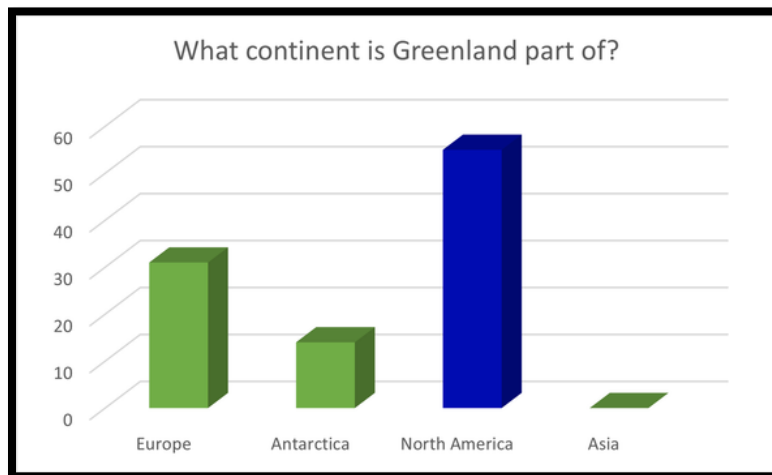
along with its political affiliation (see question 2), might explain why this answer is not common knowledge for many in this survey. For those in America, does it surprise you how close Greenland is to mainland USA? Its more of a neighbor than you might have realized.



Stock photos of North America that either completely or partially omit Greenland



That very large, icy Island above Northeast Canada is Greenland.



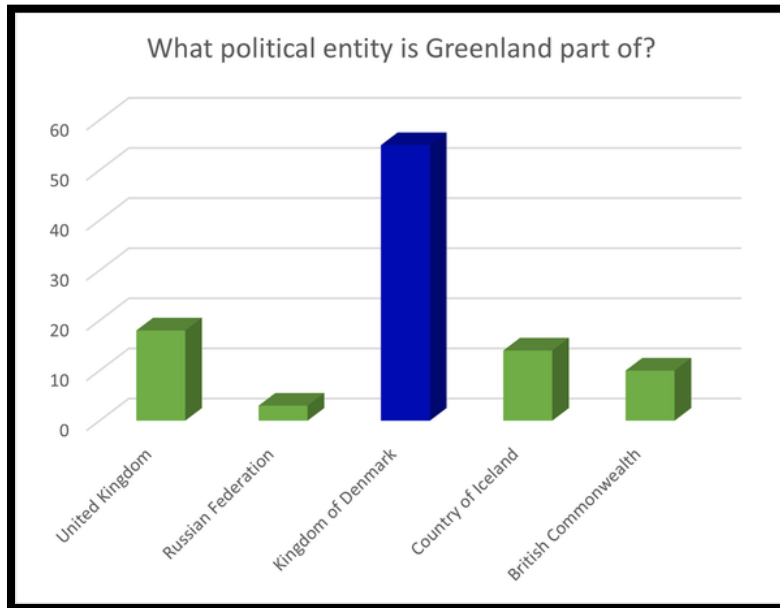
Survey results reflecting answers from the first 100 entries.

Question 2: Which political entity is Greenland part of?

Answer: The Kingdom of Denmark

Just over 50% of my first 100 submissions got this one correct as well. Greenland is an autonomous territory of the Kingdom of Denmark. It has its own government and parliament. While Denmark still has some political power and contributes revenue to the economy, there have been increasing shifts in power towards Greenlanders in recent decades. The latest

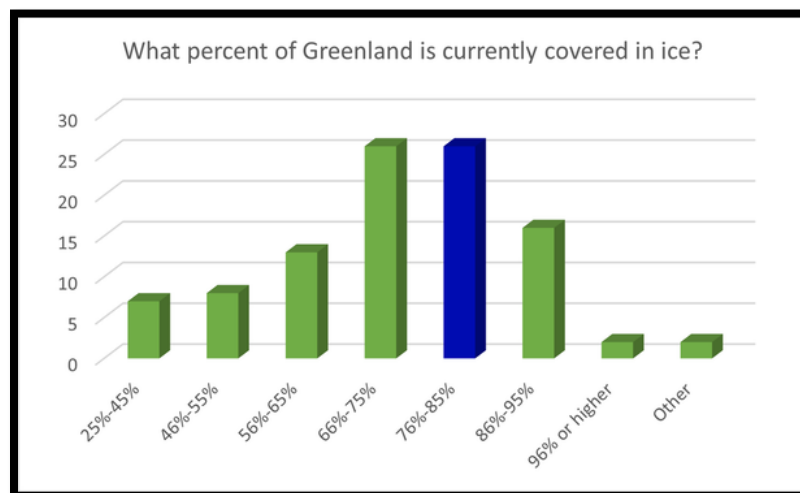
change in 2009 established the current self-government. This increased Greenland's political and economic autonomy. Interested? Read more [here](#).



Question 3: What percent of Greenland is currently covered in ice?

Answer: 80%

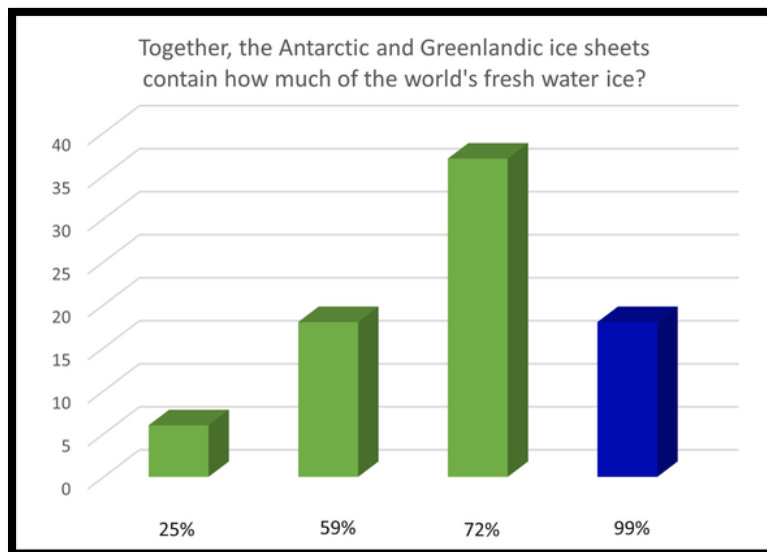
Judging by comments in the last survey question (“*What is one thing you know about Greenland not mentioned here*”) most of you are not fooled by its name...you know its more ice than green. How much more you were less sure of. Still, considering there were no multiple choice options for this question, many of you were close. Roughly 80% of the island is covered by an ice sheet that is 656,000 square miles (1.7 million square kilometers) in size. That's more than 12 times the area of New York State (where I live).



Question 4: Together, the Antarctic and Greenlandic ice sheets contain how much of the world's fresh water ice?

Answer: 99 %

Actually, its technically "over 99%" (see my [source](#)) . There is so much water frozen in the Greenland ice sheet that a full melt would raise sea-level an estimated 20 feet (6m). Don't even ask what happens if the Antarctic ice melts. These ice sheets are incredible. They form in layers, with a new layer added each year from snowfall that doesn't completely melt the following summer. Instead of melting, it piles up and weighs down on the layers below it, turning snow to ice. In each layer are clues to the climate that year. By drilling down into the ice sheet (pulling up what's called an 'ice core'), we can see over 100,000 years of climate information (800,000 years in Antarctic cores). Interested? Read more [here](#).



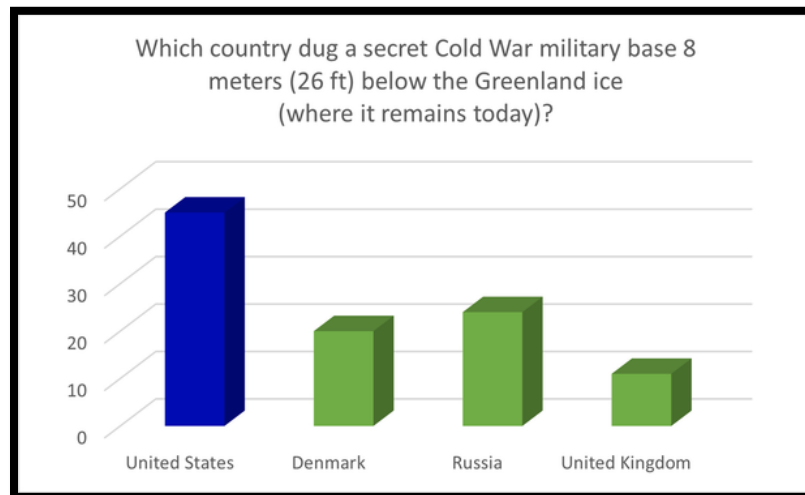
Note: this was a multiple-choice question with these four percentages as options. The sample size on this one was smaller due to author's error. The first 20 people took the survey when it was missing the word 'ice' at the end (making the question about their contribution to total fresh water, rather than freshwater ice). These results reflect those who answered after this was fixed.

Question 5: Which country dug a secret Cold War military base 8 meters (26 ft) below the Greenland ice (where it remains today)?

Answer: The United States

The 1950s saw a lot of US military activity in Greenland. Three air bases were built, along with the subsurface Camp Century, constructed to house up to 200 military members below the ice. The camp's main activities ('Project Iceworm') were abandoned in the 1960s. Minimal

decommissioning means most of the base remains below the Greenland ice today. While this answer was the one most selected, I might guess this surprised even those who choose it from the four options. Interested in this? Read more [here](#), or find a copy of this [book](#).

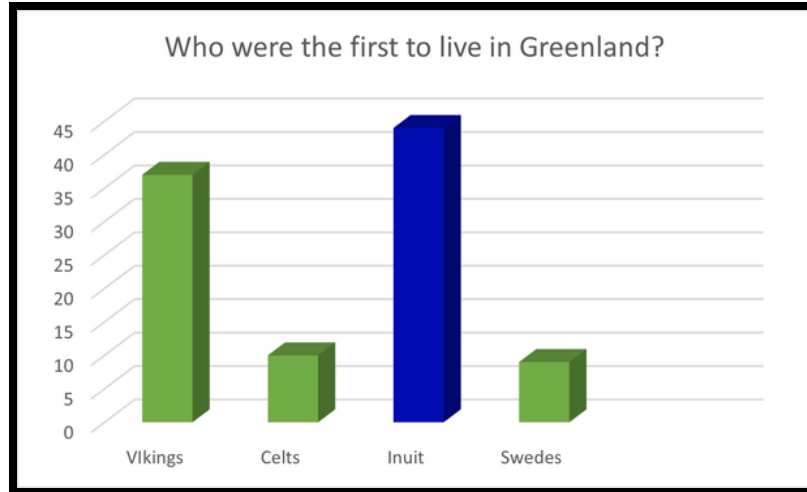


Question 6: Who were the first to live in Greenland?

Answer: The Inuit*

While the mysterious disappearance of the Greenland Vikings is shared widely, the fact they were *not* the first to inhabit the island is not always a focus of the story. This may explain a close split between these two answers. The first people to set foot in Greenland were the first of six migrations of Inuit cultures from Northern Canada/Alaska. The final migration, the Thule culture, are ancestral to the majority of the population in Greenland today.

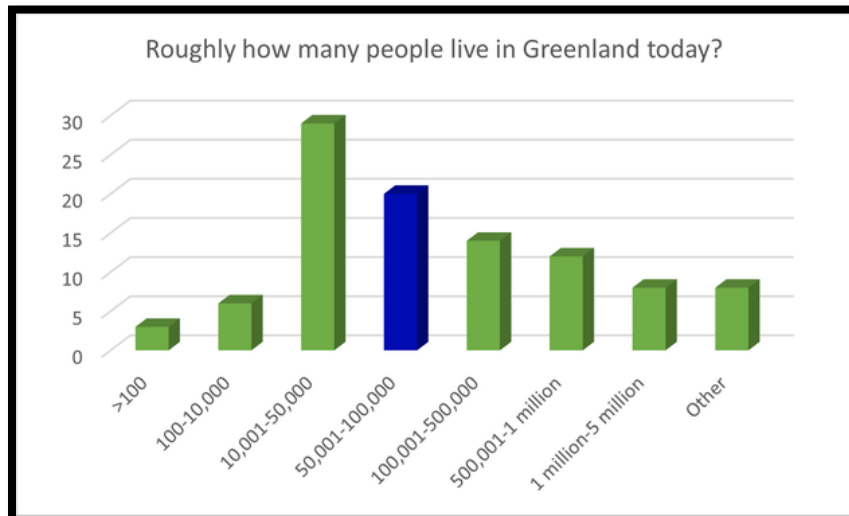
** Correction (with help from a Greenlandic archaeologist): the first peoples to inhabit Greenland were several groups, generally referred to as 'Paleo-Inuit' by modern day archaeologists. These populations originated from eastern Siberia/Alaska roughly 4000-5000 years ago. Although they are connected to the Inuit-speaking Thule culture through a distant genetic lineage, they are still considered culturally distinct from the Thule culture Inuit and we do not know what languages they spoke. The final migration (Thule) came across the Canadian Arctic from Alaska and into Greenland a short time after Icelandic/Norse people arrived.*



Question 7: Roughly how many people live in Greenland today?

Answer: Approximately 56,000

This question was asked to see if people were in the right ballpark in terms of population size. This was an open box, no choices. Consequently, there were a lot of answers. Some of you were creative in an attempt to be correct. Two of my favorites examples of this were “*At least two or more*” and “*all of them*”. Others just plain refused to guess, perhaps uncomfortable without the safety net of options. Either way, you can see many were in range, while others thought the country was considerably more populated.



Question 8: What is one thing you know about Greenland not mentioned here?

Answer: see below

Oh, question 8. Leave people a blank box and you'll get some interesting insight. Some were correct facts about Greenland. Some were incorrect. Some just made me giggle. Here are a few favorites:

- "A character on Happy Days was stationed there."
- "Greenland is full of ice, and Iceland is very nice -The Mighty Ducks 2."
- "Perhaps that the Puffin lives here?"
- "Good all natural pure food."
- "Is it larger than any other country in Europe? Sorry for my dumb answers."
- "It's cold."
- "You're going there."

Did anything here surprise you?

In Defense of Anthropology

October 21, 2021



You've probably seen them. Those reports, news articles, public comments questioning the usefulness of social science degrees like anthropology. They always make this three- anthropology-degree holder feel very warm and fuzzy. But I'd like to take a moment to argue a defense for anthropology. A strong one. As my students in *Applying Anthropology* are learning, there are so many ways anthropology can be used, an endless list of industries that can benefit from an anthropological infusion. I have a list here of excellent examples where a synthesis between anthropology and another field produces unparalleled results.

Whenever I read disparaging remarks about anthropology, I first feel anger at the author. How can they not see how useful it is to understand humans? Anthropologists dive deep into what it means to be a human—the cultural, biological, historical, and linguistic realities of humanity. But then I redirect my anger—to anthropologists. How are WE still not doing a better job of showing people how useful our field is? Of supporting the professionals out there doing the work that proves this? When SUNY Potsdam hired me and asked I focus on teaching applied anthropology, I was ecstatic. I have always been passionate about moving anthropology out of the university and into any industry that could benefit from understanding humans better (read: all of them). Right now has never been a better time to defend this field.

So what can anthropology be used for? Here are some uses my students are exploring this semester. For those unfamiliar with the field, these come from the four traditional ways to study humans: Biological Anthropology, Cultural Anthropology, Linguistic Anthropology, and Archaeology. Here is a sample of what we can do.

Entertain people! Check out [this archaeologist baker](#) who shows people how to recreate bread like the Romans, make cookies perfectly replicating cuneiform writing tablets, or recreate a pub

meal served in ancient Pompeii. Her work was especially popular during the pandemic baking craze, when people needed a diversion from stress. People are fascinated by archaeology, there is a lot of room to grow applying it in the entertainment fields. Movies, books, children's literature, podcasting, experiential courses, themed travel packages for students, families or retirees...all of these are great places where anthropology and archaeology have designed innovative entertainment (...let's do more!)



Produce better businesses. One of my students brilliantly connected primatology (the study of non-human primates) to his major in business administration. He was inspired by the conservation efforts of anthropologists working in primatology, saying they made him want to build better business practices in the future *“I am majoring in business administration and a lot of times we tend to forget to look at our global footprint or where we are getting our resources from, but without resources, we wouldn't be able to create or produce anything....as I continue furthering my knowledge in both anthropology and business administration I continue to gain a perspective on how important it is to look at green or environmentally friendly corporations. This is something that I can see myself focusing on.”* It's not just the study of primate conservation that is useful, the synthesis between [business and anthropology](#) has long championed the benefit of understanding culture to transform globalized companies. With ESG (“Environment, Social, and Governance”) principles in focus throughout industry, anthropology is a strong partner for building better businesses.



Develop effective medical initiatives. As should be clear right now, people react differently to medical concerns. Their physical experience with disease, their definitions of health, their behavior in the face of medical threats, and the methods that best heal a suffering human are better understood with [Medical Anthropology](#). Dr. Paul Farmer and [his team](#) made this synthesis between healthcare and anthropology famous in places under severe medical duress, but this is useful everywhere. Understanding how our culture and identity influence our experiences with health will produce better healthcare and better public health campaigns. Combined with this, the field of [anthropological genetics](#) is designing personalized and evolutionary medicine that will advance medical treatments to a whole new level. These biomedical uses of anthropology are taking off...I suspect they will continue to be powerful examples disproving those who question the usefulness of the field.



Improve education. Did you know your linguistic background, your ethnic upbringing, and the unique culture of your neighborhood can affect how well you do in school? Anthropologists do. The anthropology of education tries to find better ways to use what we know about the effects of our languages and the cultural influences that impact educational success. On the other side of this pandemic, we will need to look at how to build back education and help kids that fell behind. Anthropology can help.



Design heritage and science tourism programs. All around the world the archaeological wonders of our past are in danger. Archaeology and anthropology are at the front line designing ways to protect, share and teach the past. From managing UNESCO world heritage sites to designing science tourism programs that help you learn while traveling, anthropology is building a better way to move into the future while honoring our past.



Realize the potential and limitations of technology. Culture impacts technology. It impacts how you use it, how it affects you, even whether or not you will purchase the next product developed. For example, did you know the success of facial recognition software was heavily influenced by cultural factors in different markets? [This anthropologist](#) at Intel did. Anthropologists also study ways to combat the negative effects of technology. For example, [this PhD student](#) is exploring digital addiction and detox methods, one of many ways to use anthropology to improve our digital lives. [Digital anthropology](#) can tell us how culture affects technology, a synthesis useful in so many ways.

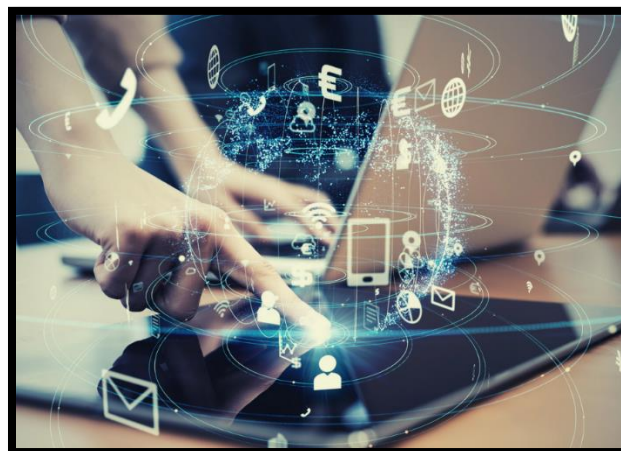
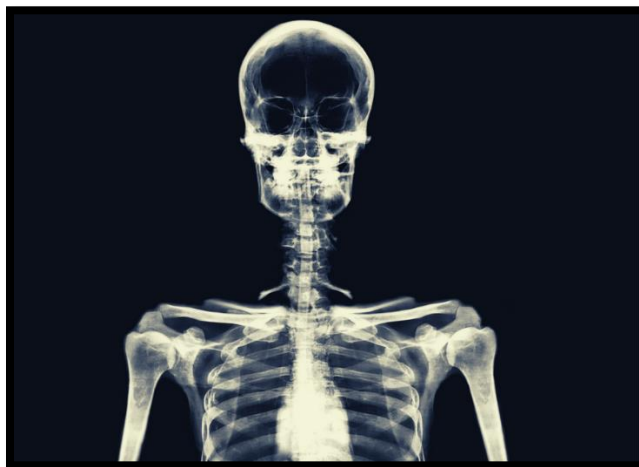


Figure out how to prepare people for climate change. Climate change will likely impact everything- the housing market, supply chains, agriculture, travel, urban planning, architecture, healthcare, health concerns, money markets, supply and demand, and so much more. If you

think I am stretching, google climate change with any one of these words. Anthropology is poised to help us understand how these impacts will be felt differently in different cultures around the world...and by different sections of the same society. Additionally, archaeologists give us insight into how environmental shifts were dealt with in the past. Who failed and who succeeded when something in their environment shifted? As we grapple with what needs to be done right now to prepare, anthropology will help.



Identify the dead. The less fun but very needed applied field of forensic anthropology steps in when human identifications are needed. This might be just one person found whose body can't be identified...or a mass disaster where identifications can reach into the hundreds or thousands. In these cases, people rely on those with a deep understanding of how identity markers present on human remains. That knowledge helps disaster relief teams connect a person with their family and their identity. Earthquakes, tsunamis, building collapses, fires, terrorist attacks, drownings, plane crashes, and violence all create the need for anthropologists who work alongside FEMA, law enforcement, humanitarian relief groups, the Red Cross and the United Nations. Ongoing research in this field is rapidly changing the success and speed to which we can identify the dead.



Those are just a few examples...there are so many more. The study of humans, whether it's biological, cultural, linguistic, or historical, can be used in every aspect of the modern world. But we need to continue to speak up. Some already do...so I am joining their voices. Speaking to fellow students, professionals, or advocates for anthropology: the next time someone asks you *“what are you going to do with that degree?”* or *“why are you taking that class?”*, have an answer ready. Give an example where anthropology built a better business, uncovered a vital fact about the past useful for managing the present, changed the course of a medical crisis, prepared a society to face an impending problem, or gave people a fun diversion during a time of stress. Together, we can build a defense for anthropology.

For those knowledgeable about the field, please feel free to add to this list of what anthropologists can do in the comments! Its very far from complete as is.

Nine Things to Pack for November in the Arctic

October 25, 2021



With the week of travel here, its time to pack. I have a pile ready to help make for a comfortable trip to the Arctic. Here are some of the things I'm packing for takeoff on Thursday.

Luckily, I am no stranger to cold weather. Despite this, I did some research on the best way to pack for November in the Arctic. Websites like [Visit Greenland](#), [Greenland Travel](#) and [Guide to Greenland](#) helped a lot. Some items I had, others I purchased. Given my new stock of cold weather gear, I am now looking forward to winter in my own northern home!

1. Long underwear: These will be worn every. single. day. I am a person who runs cold naturally, I suspect the chill of the Arctic in November will be quite noticeable. The top recommendations for long underwear are those made from wool or silk. Both are expensive and both were hard to find (shipping/stocking delays at outdoor companies). So I am bringing two pairs of synthetic long underwear I already owned made from polyester and spandex (never cotton).

2. Wool, wool, more wool: Merino wool is the ideal material for baselayers, the clothes you wear *under* your other clothes in cold climates. Unlike fabric such as cotton, merino wool dries quickly and is incredibly warm. The merino wool also lacks the lovely scratchiness of typical wool. You will pay for these benefits however. I splurged on this [merino wool top](#) from Backcountry. I will probably wear it every day...till my kids go to college (I need to get my money's worth). This [wool hat](#) and some wool [hiking socks](#) were also purchased for the trip.



3. Good boots: I cannot imagine a more important piece of clothing for frolicking around the Arctic in November. I purchased [these](#) back in July, but any that are waterproof, well-built, and treaded are ideal.

4. Gloves AND glove liners: Layers are key, even on your hands. I went with LL Bean's glove liners, I rarely regret a purchase from them (and it was one of the few desired items they had in stock). The outer gloves were a gift years ago, a well-loved pair that are fleece-lined.



5. Outdoor, water resistant or water repellent pants: I have a few already, but I also just found [these](#). In addition to being great pants, the company ([PrAna](#)) puts a lot of resources into sustainability and socially-responsible business practices. I had trouble getting fleece lined jeans which I think would have been amazing. Many of the ones I found were back ordered. So I'll have to depend on layers.

These next few are more universal items that make international travel to any place easier.

6. Travel underwear: Access to laundry facilities when traveling internationally is not a guarantee. So laundry happens in the bathtub...or the sink. One of the benefits of travel underwear is they dry fast (overnight). This is not the case with normal underwear. Partially damp underwear seems like a bad idea for November in the Arctic. A few pairs of travel underwear can go a long way if you wash every few days. I've always used [ExOfficio](#), but I know there are other brands out there.

7. Other laundry accessories: A few other cheap purchases make sink/tub laundry more efficient. A drain plug, for one. Always a bummer when you go to soak something in the sink only to discover you can't keep the water in. Travel laundry soap and a compact clothes line also help.

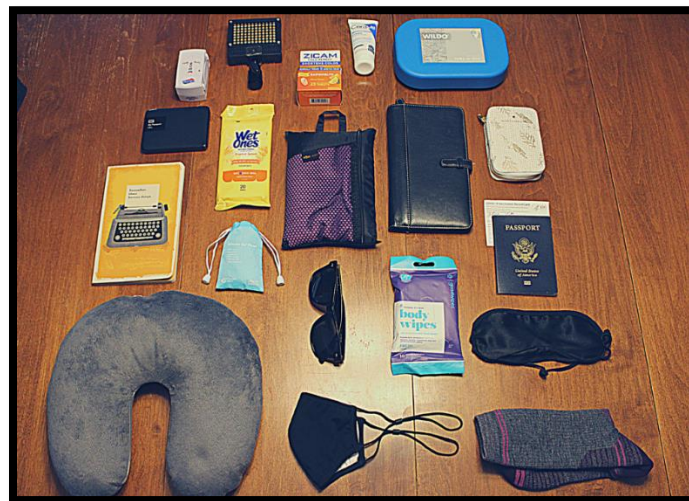


8. Backpacks: I'm ditching the wheelee suitcase, it's impractical for many places. It took a surprising amount of time for me to figure this out. One big pack will be checked carrying all of my wool and travel underwear. The smaller one will be carry-on, with laptop, camera, and change of clothes (ALWAYS carry-on a change of clothes). Luckily, I already had both (thanks to my mother-in-law and brother)!



9. Reminders of home: See post about [homesickness](#). I know I am going to miss my family, so I'll be carrying pictures of them (actual printed ones...plus digital). A token from home related to the people, places or pets you will miss help in periods of homesickness. I have yet to bring a picture of my coffee maker, but anything is fair game.

Okay, so this is not everything I am packing. I also have a lot of fleece, a down winter jacket, plenty of toiletries, reusable ear plugs, an eye mask, high-quality face masks, copious amounts of anti-bacterial, various tech tools, copies of my vaccination card and passport, a dual-voltage hair drier, extra cards/cash (kept in different places!), sunglasses, travel towel, a new notebook, power converters, and more. Getting all this into two backpacks will be a challenge. Wish me luck. Four days till takeoff.



Mom Guilt.

October 27, 2021



With my trip only one day away, I am feeling a lot of emotions. Nerves, anxiety, excitement...but also a good dose of mom guilt.

As I finish packing, I am having a serious attack of mom guilt. As [this author](#) defines it, mom guilt is the *“pervasive feeling of not doing enough as a parent, not doing things right, or making decisions that may ‘mess up’ your kids in the long run.”* Yup, sounds familiar.

Mom guilt related to work has you questioning your professional choices, wondering what impact your absence will have on your kids. It can greatly affect a woman's career choices (dads too...dad guilt is a thing as well, even if mentioned less). That's why I am talking about it to my students. Like [homesickness](#), these feelings are powerful. They can cause us to make decisions we otherwise might not make (like...not participating in great international projects). I hope by sharing this reality, it may help those in this situation in the future. For those with ambitious career plans and a desire to build a family...the work to balance the two can come with a lot of emotions.

For weeks now I have looked at my sons and wondered....how will they take my absence for over two weeks? My oldest (4) seems to understand. He has even shared in the excitement of where I am going and the cool things I get to do. No small part of this excitement is from my promise to find him a volcanic rock in Iceland (Airport Kiosk...pleaseeee have volcanic rocks for sale). My youngest (2) does not get it. He is also the one who struggles most when I am away even briefly. Consequently, I have been dreading the goodbye and the thought of how he will

feel when I don't come home Thursday night. Or Friday. Or Saturday. Or another two weeks of missed bedtime rocking and morning kisses after that. I wonder if it's a mistake to leave him so young. Should I have waited a few more years before returning to international research? Should I have leaned into the toddler mom years and put any ambitious career moves on the back burner for just a bit? While I have no doubt they will be well cared for (my husband is experienced as a stay-at-home dad), the mom guilt pervades. All these doubts swirl through my brain as I try to remember what I still need to do before I leave. So, yea, there is a lot of mom guilt clouding any excitement I have to travel at the moment.

I knew this would be tough emotionally. I've never been away from my kids more than three nights (only one night since the pandemic started). When we finalized the plan for this trip, when I booked the flight, I knew these emotions would come. I can foresee the guilty feelings that will rush in when I walk away at the airport. With this foresight, I could have chosen not to do this. I could have given into the guilty thoughts that being gone for over two weeks would damage my children and make my youngest feel abandoned. But I decided not to back when we were planning, and I am deciding not to now. In pursuit of an amazing professional experience, I am checking these emotions and examining what they really are - normal feelings that are part of parenting. For those pursuing ambitious careers, if you also tackle parenting these emotions will come. And sometimes you MAY choose to turn down the big work trip or the promotion that increases your time away. But what I think is important is that these decisions be made carefully, weighed thoughtfully... not jumped on in the heat of a bout of mom guilt. Back when I decided to do this, I calmly considered the possible effects two weeks without me could have on my sons. Let's be honest...they may not mind my absence all that much. I compared those possible effects to this opportunity and the choice was clear (to both me and my husband who pushed me to YES). Now I just need to work through these feelings and do what I set out to do. And hopefully, in the process, my choice will be a great example to my kids of working hard to pursue something great.

Cover photo: apple picking, and other fun fall activities kept me distracted this past weekend.

The Journey Begins

October 28, 2021



I am currently waiting for an eight-seater plane to jet set out of Massena International Airport, where this journey officially begins. It's a bit delayed so I have some time to reflect on the crazy travel logistics that had to come together to get here. I hope I got it all right...

Traveling internationally right now is no simple task. In addition to the normal stress of travel planning, the on-going pandemic requires a lot of effort. To give you an idea of what I mean, here were the steps I had to take to prepare for travel this week:

- Check flight status to Boston
- Check flight status to Iceland
- Check flight status to Greenland
- Check accommodations in Iceland
- Check accommodations in Greenland
- Triple check passport expiration date (I did this a long time ago but felt the need to look again)
- Ensure vaccine card was enough proof for entry into Iceland
- Ensure vaccine card was enough proof for entry into Greenland
- Get a COVID PCR test, taken no more than 72 hours before boarding to Iceland
- Ge a Rapid Antigen test, a backup in case my PCR test was delayed (takes up to 72 hours for results)
- Print negative test results from both the PCR and Rapid Antigen test
- Fill out entry paperwork required by Icelandic government

- Register for another COVID PCR test in downtown health facility in Iceland (Greenland currently only accepts tests from a Nordic country)
- Fill out entry paperwork required by Greenlandic government
- Check in with Hans and Alice on schedule changes
- Arrange airport pickup time with Alice upon arrival to Iceland
- Pray I got this all correct....

Visualizing the Past

October 29, 2021



One of the reasons we are going to Greenland Science Week is to host digital heritage workshops. The workshops will teach members of the public how to use visualization methods such as 3D scanning and photogrammetry to produce digital recreations of Greenlandic archaeological artifacts or family heirlooms they are encouraged to bring in.

Below is a draft of our poster about to go to print. As we plan to link this post with a QRL code on the poster (and I needed the URL to this page), its going up now! This post will be updated shortly with more examples of visualization products and details about the workshops!

VISUALISING OUR PAST: SCIENCE COMMUNICATION AND ARCHAEOLOGY

Alice Watterson, PhD
University of Dundee 3DVisLab

Kathryn Grow Allen, PhD
SUNY Potsdam

Hans Harmsen, PhD
Nunatta Katersugaasivia Allagaateqarfialu

INTRODUCTION - KULTURIKKUT KINGORNUSSAT

3-D visualisation allows museum objects to be made available online so that they become an educational resource and can be accessed by a wide audience. It also allows local and indigenous communities to play an important role in reconstructing their own past. The co-curation of an online 3D showcase of museum objects in Greenland explores this process of knowledge co-production to foster meaningful cross-cultural exchange and inspire ownership of local history.



BENEFITS TO COMMUNITIES

3-D visualisation allows communities to engage in dialogues about their past and their future. Within our work, the community becomes a part of the documentation process, giving ownership over the development of knowledge regarding their local history and museum objects. These interactive tools live online and are made freely available to the Sisimiut Museum, local schools and the public. The community can share their history widely, participate remotely in heritage activities, and pass on personal narratives to future generations through these digital resources. Like other remote Arctic communities where these methods have been used, Greenlandic communities can co-produce knowledge through the dynamic visualisation of a shared past.

3-D HERITAGE WORKSHOPS IN SISIMIUT & SARFANGUIT

Collaborations between archaeologists and communities produce more meaningful and deep understandings regarding the preservation of heritage. Additionally, community narratives can better contextualize data and interpretations. The outcome of the workshops in Sisimiut and Sarfanguit will be a 'digital exhibition' of 3D objects, co-curated along with stories and narratives provided and inspired by local citizens.

METHODS

- Community workshops
- Co-design practices
- 3D data capture
- Digital visualisation and reconstruction
- Interaction design
- Short film and animation



OUTCOMES

- Social media community connections
- Interactive home software
- Digital museum exhibits
- School lesson plans
- Science tourism content
- Virtual international learning courses
- World heritage promotions



University
of Dundee



Potsdam
STATE UNIVERSITY OF NEW YORK



Lougheed
Center for Applied Learning
LEARNING EXPERIENCE. INSPIRE. ACTIVATE.



NUNATTA
KATERSUGAASIVIA
ALLAGAATEQARFIALU

Good Morning Iceland!

October 29, 2021



Arrived in Iceland bright an early this morning after a pretty easy five hour flight from Boston. Today's weather is cold but calm and sunny, perfect for getting a fast introduction to the country before flying out for Greenland tomorrow evening.

Real quick, a few pictures of Reykjavik. More to come this evening!

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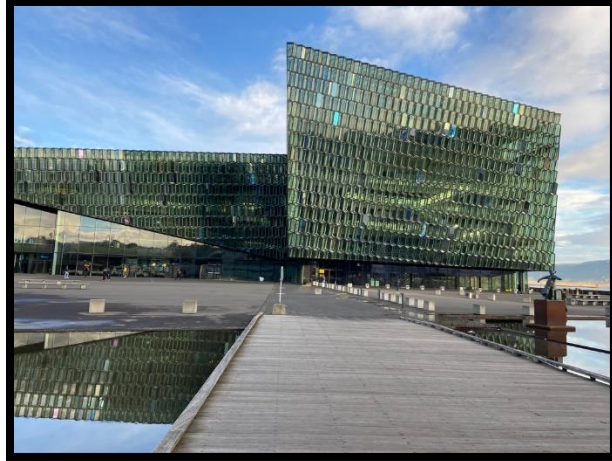
Downtown Reykjavik in the early morning hours



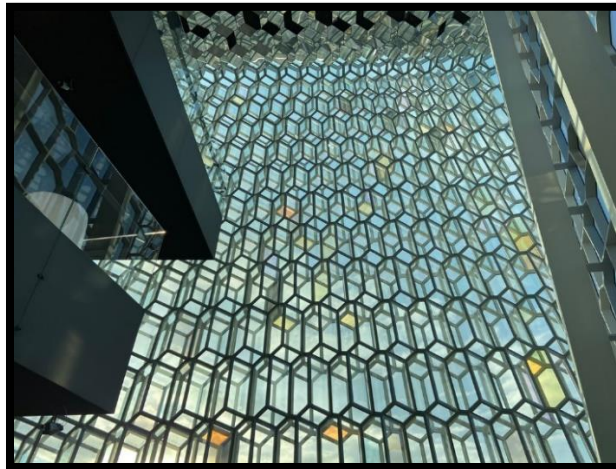
Pancakes and an Americano with Alice at the Laundromat Cafe (yes, you can do your laundry downstairs)



?



Harpa, the main concert venue in Reykjavik. Bjork is playing next week!



Inside Harpa



Icelandic health facility where I had my most painful PCR test yet...ouch!

The Land of Fire and Ice

October 30, 2021



They call Iceland the land of fire and ice. Between its volcanoes, glaciers, and snowy mountain tops, it's not hard to see why. Yesterday I had a chance to see a lot of Iceland's water - geysers, waterfalls, lakes, and even a glacier. Today, I'm hoping to see some of that fire...or what was fire just a few weeks ago (their volcanic eruption site near Reykjavik).

I have about 30 hours in Iceland. This long layover on the way to Greenland was intentional. To get into Greenland, you need a negative COVID PCR test (and proof of vaccination). They only accept test results from Nordic countries at the moment. I landed around 6am in Icelandic time, was picked up by Alice ([team post](#)) after a quick coffee at the airport cafe. We set off to see as much of Iceland as we could. After a quick breakfast, she took me out of the city to see some of this country's stunning landscape. I was not disappointed. Below are a few shots I got yesterday of the Golden circle, a road that takes you to Thingvellir National Park, The Geysir Geothermal Area, and Gullfoss Waterfall. This country is just as beautiful as its rumored to be. I hope to come back and post some captions to these, but for now here are just some beautiful shots.

P.S... both of our COVID tests came back negative, so we are ready to board a flight to Nuuk, Greenland this evening around 5pm (1pm EST).



To view this video, see post on website at: <http://www.kathryngrowallen.com/virtual-field-trip/the-land-of-fire-and-ice>





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Strokkur Geysir at Geysir Geothermal Area outside of Reykjavik, Iceland

Quick Trip to a Volcano. Then...Greenland

October 30, 2021



I woke up today to a second sunny day in Reykjavik. As I had been awake for 48 hours without sleep yesterday, I slept in a bit. Eventually, Alice and I headed out in search of coffee and found a nice little spot to grab a pastry and some caffeine. Then, we hit the road in search of an eruption site. It was the perfect day to visit a volcano.

As we left Reykjavik, we drove fifty minutes through a majestic landscape along the coast. Views of crystal blue water, wide open land, and sunshine made it a stunning morning drive.



Views outside of Reykjavik

We pulled up to a car park that had been installed for Iceland's newest attraction: an active volcanic eruption site. Back in March, a volcano in Geldingadalir Valley outside of Reykjavik started to erupt. Since then, it has erupted and gone dormant again a number of times, producing extensive lava flows and changing the landscape all around it. It's a bit hit or miss if you happen to be around when it is erupting. It was calm when we visited, but you can see puffs of smoke coming out and the landscape around it is just incredible. You have to hike pretty far up to get the spectacular views...but it's well worth the effort!



You can see the volcano on the right side, with rising puffs of smoke. The dark brown areas of the landscape are the lava flows



A closer look at the volcano (but not too close...I promised my son I wouldn't get too close)

The volcano itself was impressive but the lava was incredible too! Up close it had so much texture. You can see folds and crevices, evidence of the movement that recently brought it from the fissure where it first emerged.



Lava flow



To view this video, see post on website at: <http://www.kathryngrowallen.com/virtual-field-trip/quick-trip-to-a-volcano-thengreenland>

We wrapped up our volcano tour and headed to the airport. We left plenty of time for delays. Alice had almost missed her flight in Scotland, held up in security after her 3D scanner set off all the explosive residue test alarms (turns out... she forgot about that historical museum rifle she recently scanned...). Arriving early turned out a good plan. We didn't have trouble in security but we did get into line right behind a well-known Icelandic singer and his band...and their 22 pieces of equipment that had to be checked. We made it to our flight in plenty of time however...proof that getting to the airport early is always a good idea (especially when the next flight to Greenland is three days away).

When it came time to board our flight, Alice and I were giddy. Both of us had dreamed of working in Greenland and had both spent the weeks leading up to today incredibly stressed about the things that could cancel this trip. When we stepped in front of that bright red plane, it felt like a huge win.



Alice getting ready to board the plane to Nuuk, Greenland



Me getting ready to board the plane to Nuuk, Greenland

The flight was meant to be just over three hours long, but it wasn't long until we started to see the first glimpses of Greenland.



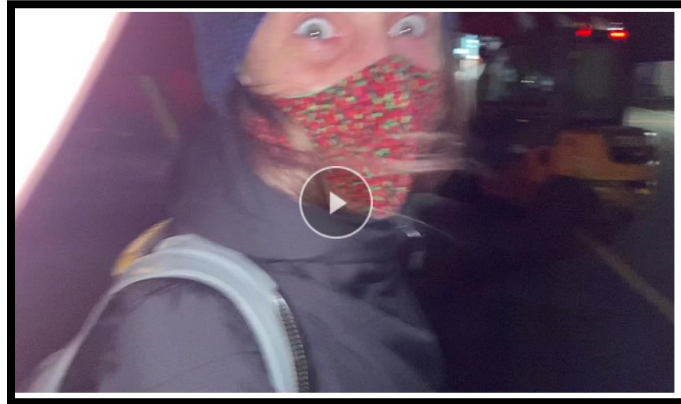
Flying over Greenland's east coast on the way to Nuuk



A view of Greenland's east coast

We were not going to arrive to Nuuk in three hours however. Somewhere over the ice sheet, the pilot received news that the weather in Nuuk was bad. We were informed that we couldn't land in Nuuk and were diverted to Kangerlussuaq, a town almost 200 miles north of the capital. The landing was...rough. One where you grip your armrests and feel your stomach in your throat. Everyone on the plane filed into Kangerlussuaq airport. Just when we were wondering what in the world to do to find accommodations so late in a town we knew nothing about, we

were told to get back on the plane. A bit nervous about the weather but happy to be headed to Nuuk again, we took off. Another 55 minutes brought us into Greenland's capital. The landing here was even worse, as we watched the plane rock back and forth and take on some serious headwinds. I may have some new grey hairs. When we deplaned, we realized why it was such a tough landing...WIND. Incredible winds blasted us the second we left the plane. It was hard to stay standing. Greenland was giving us a dramatic welcome.



Watch this video online at: <http://www.kathryngrowallen.com/virtual-field-trip/quick-trip-to-a-volcano-then-greenland>

All of our luggage (and the band's) made it in one piece. We made a quick call to Hans (see the [Team post](#) if you need a refresher). He had assumed we would be stuck in Kangerlussuaq overnight when he saw online our flight had been diverted. Apparently if we had, a flight tomorrow would have been unlikely as well. So we were fortunate to be standing in Nuuk only two hours late. He scooped us from the airport and delivered us to our rental rooms where I am writing from. Both the darkness and the storm kept me from getting a good look at Nuuk. The morning will hold my real introduction to this city. For now, I can hear the wind howling outside (and I mean *howling*) and I am truly ready for sleep. A very full day for sure...but I'm finally here in Greenland, safe and sound.

COP26

October 31, 2021



My first morning in Greenland coincides with another important first day in the world: the start of [COP26](#). For the next two weeks, the world's leaders gather in [Glasgow, Scotland](#) for the 2021 United Nations Climate Change Conference. Their goal: design a global front against climate change. The outcomes of this meeting will affect the entire world, least not Greenland.

This summit of world leaders is looking to design new agreements on how to handle what could be catastrophic climate change. But its only just starting. So I have no great insights into the outcomes of this event. What I can do is provide a bit of background on the conference and its connection to Greenland. The world will know more in thirteen days.

What is COP26?

- For nearly three decades, the United Nations (UN) has hosted a yearly climate change summit. This year is COP26 ("Conference Of the Parties, 26"). Almost every country on earth is a part of the UN Framework behind these meetings. This year's summit runs for 13 days, from October 31 to November 12 in Glasgow, Scotland.

Who is attending COP26?

- The United Nations Framework on Climate Change ([UNFCC](#)) is the arm of the UN behind these meetings. The entity has 197 members (countries and other political bodies) who have agreed to support efforts that stabilize human-caused environmental changes. This year, it is anticipated that 100 world leaders will attend. Which ones have not been fully

revealed as of right now. The list that is currently circulating the news is as follows (this may change in the coming days):

- *Attending:* Argentina, Australia, Canada, Colombia, Democratic Republic of Congo, the European Union (representatives from 27 member states), France, Ghana, India, Israel, Italy, Nigeria, Scotland, South Korea, Sweden, Switzerland, Turkey, and the United States.
- *Not Attending:* Iran, South Africa, Japan, Mexico, Russia, and Brazil.
- *Attending Remotely?* China. The world seems unsure what China's participation will be right now.
- *Also in attendance:* tens of thousands of representatives from NGOs, the media, lobbyists, protestors, negotiators, major figureheads (like the Queen of England), and more.

Is this related to the "Paris Agreement"?

- Yes. The Paris Agreement happened at the 2015 COP21 in Paris. That summit was historic. For the first time, every country agreed to work together to limit global warming, with the aim of stopping it at 1.5 degrees Celsius (34.7 degrees Fahrenheit) above pre-industrial temperatures. Each country was to develop a national plan for reducing emissions and stopping the trend towards global warming. They agreed to meet every five years with an updated plan. Last year was meant to be that first five-year review. Delayed by the pandemic, it is happening this year instead.

Why do we need to stop global warming at 1.5 (C)/34.7(F) degrees?

- It has been predicted (based on huge amounts of scientific research conducted around the world) that global warming to 2 degrees Celsius (35.6 F) would be catastrophic. Warming to 1.5 will still cause a lot of trouble, but less catastrophic. The global community could work to adapt to this level of change.
- The four actions in focus at COP26 for keeping global warming at 1.5 C are: (1) accelerate the phase-out of coal, (2) decrease deforestation, (3) speed up the switch to electric vehicles, and (4) encourage investment in renewables.
- There are a lot of places to read more about this, including the Intergovernmental Panel on Climate Change (IPCC) [2018 Special Report for Policymakers](#).

What are the goals of COP26?

- The plans laid out after COP21 and the Paris Agreement have not made it possible to limit global warming to 1.5 degrees (C). In other words, we need new plans. That is what COP26 aims to do. Each country will be asked to submit their plans for reducing global warming in the next five years, plans that will feasibly stop the world's temperature rise at 1.5 degrees C.

Why is this summit important to countries like Greenland?

- It is important to all countries, as no one will be spared the impact that continued changes will have. But northern countries like Greenland are predicted to have especially severe impacts from a global temperature rise to 2 degrees Celsius. Ice melt, increased temperatures and increased precipitation could destroy communities, as well as plant and animal species across the Arctic. Some communities are already feeling these effects, such as [this one in Alaska](#). There is also a huge concern that this level of temperature change would destabilize the Greenland Ice Sheet (and the Antarctic one). Melted glaciers and ice sheets raise ocean levels. They could raise it to the point where most coastal cities will be flooded or submerged in the coming centuries if something doesn't change. There is a 'point of no return' that could happen rather soon. These melting masses of ice could even change the [rotation of the earth](#). The amazing video below, directed by Scottish Researcher and Film-Maker Dr. Kieran Baxter, shows you just how fast these changes are happening in arctic countries.

Is there hope in the face of what feels like impending doom?

- Yes. There is always hope. There is always work we can do. Remember that. Let's see what the world's leaders come up with over the next two weeks.



Watch this video online at: <https://www.climatevis.com/after-ice>

A Rainy Day in Nuuk

October 31, 2021



I woke up this morning to rain and wind still howling. Last night's stormy weather has yet to pass. Today was also the end of Daylight Savings Time in Greenland. Yesterday I was two hours a head of my home (EST). Today I am only one. But I was starting to get used to Icelandic time (four hours ahead). My internal clock is officially confused. Luckily it's Sunday, so there were no big plans to attend to.

The day was a simple yet pleasant one. A few hours of working this morning in my rented room, followed by lunch at a Tapas restaurant with Alice. The walk there was...icy. Turns out, it's cold in Greenland in November. Good thing I [packed](#) all that wool. After lunch, a visit to the Greenland National Museum and a home-cooked meal at Hans' made the day rather cozy. It was certainly a day to stay inside, as the wind was so strong it almost knocked me over a number of times. I am a bit concerned about our planned flight to Sisimiut tomorrow if this weather doesn't calm down. Greenlanders seem to take the possibility of sudden schedule changes due to weather with stride however. If a flight gets cancelled and events need to be rearranged due to weather, so be it. As is often needed when traveling internationally, we'll just have to go with the flow. We will see what tomorrow brings. In the meantime, here are a few quick shots of Nuuk's waterfront and some amazing exhibits at the Greenland National

Museum & Archives. Not too many, I preferred keeping my gloves on today. But even under storm clouds, the colorful capital of Greenland shines.



Watch this video online at: <http://www.kathryngrowallen.com/virtual-field-trip/a-rainy-day-in-nuuk>



Nuuk harbor



The icy shores of Nuuk, Greenland



The Greenland National Museum & Archives Campus



Traditional kayaks exhibited at the Greenland National Museum



Museum exhibits at the Greenland National Museum



Exhibits at the Greenland National Museum



Hans and Alice inspect artifacts at the Greenland National Museum



Watch this video online at: <http://www.kathryngrowallen.com/virtual-field-trip/a-rainy-day-in-nuuk>

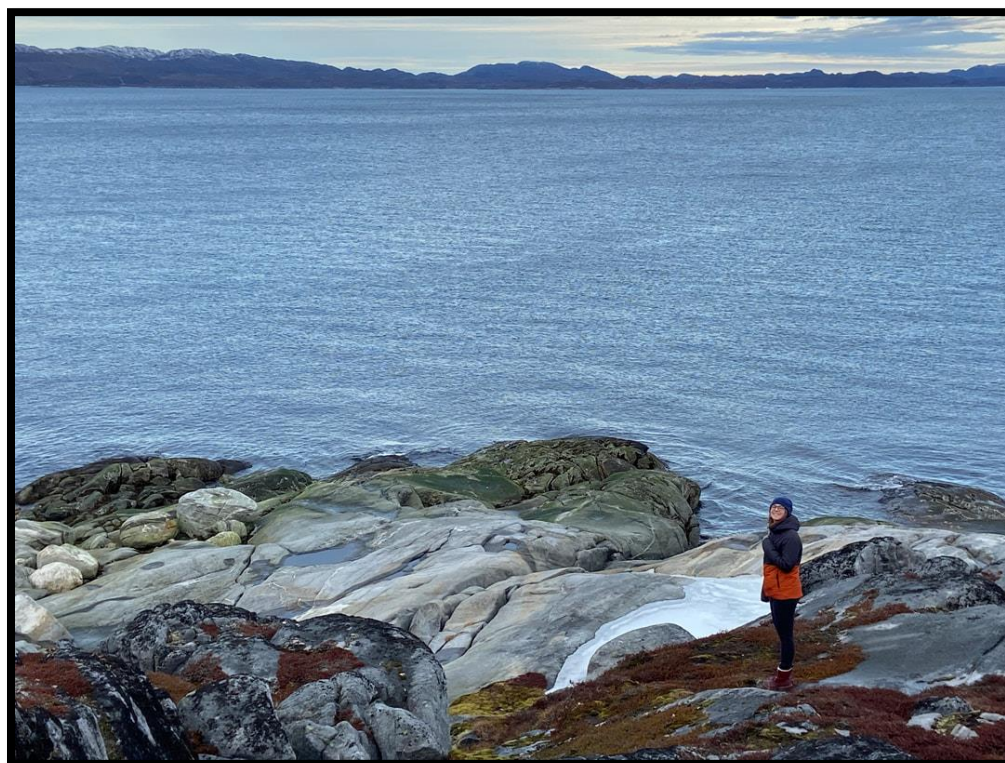
Good Morning from the Arctic Circle.

November 2, 2021



Last night I arrived to Sisimiut, a city inside the Arctic Circle. After a clear day in Nuuk that provided a better glimpse of the beautiful capital, a small Air Greenland plane took Hans, Alice, and I ([Team post](#)) north.

Yesterday (November 1st) was a planned travel day. The first events of Greenland Science Week were starting in Sisimiut, a city 200 miles (320km) up the coast. We had no formal plans other than getting back to the airport. Alice and I checked out of our rented rooms and had a few hours to spare. We were welcomed at the archives division of the Greenland National Museum & Archives and spent the spare hours getting a look at the University of Greenland and the National Archives, which share a building right on the water. I was able to secure an interview and more formal tour that I can photograph/video for you all next week, so stay tuned for more about the work of Greenland's National Archives! Prior to the informal tour, Alice and I wanted to head to the water. The day was much more clear than when we arrived so we had proper views of the surrounding landscape. It was....breathtaking. Let me allow the coastline to speak for itself here....



Views from the outer limits of the city of Nuuk



A look back up at the outer edge of Nuuk.



Two Greenlandic flags frame a breathtaking view.



Discovering features of an unfamiliar environment



What a place to rest peacefully.



Always think deep thoughts in a place like this...



....and then take a selfie.

After the morning walk around the water, Alice and I were given an informal tour of the University of Greenland. I have always loved getting a glimpse into universities outside the United States. Could you even enroll in a university in another country? What might be the biggest hurdle to finishing a degree outside the country where you were raised? What would be the biggest benefits? Here is a quick look...for anyone interested in enrolling in the [University of Greenland - Ilimatusarfik!](#)



Left: A typical classroom at the University of Greenland; Right: The library at the University of Greenland



Left: The entry area at the University of Greenland; Right: The "American Corner" at the University of Greenland! Alice is still looking for the Scottish Corner...

In mid-afternoon, we headed back to the airport for our flight to Sisimiut. It was a bit delayed. We landed in Sisimiut after dark, but the weather was rather mild. A fine greeting from the Arctic Circle. It was incredibly exciting to step foot inside the Arctic Circle for the first time. It feels a bit like a life achievement, to say I ventured this far north in our world. While I didn't get much of a view of Sisimiut last night, I could already tell it would be a colorful place to explore. Looking forward to reporting back tonight on this Greenlandic city!



Deplaning in Sisimiut



Sisimiut Airport in the dark



Hans and Alice in the kitchen, as we end a long day with a good meal.

Preparing for Workshops and Escaping the Rain

November 3, 2021



It rained yesterday and its raining again today. Greenlanders keep telling me this is abnormal. Usually by now, Sisimiut and many other Greenlandic cities would see only snow for precipitation. But instead, a cold rain has descended. It's covering the small amount of snow sitting on the ground and turning it to ice. Still, like Nuuk, even drizzle cannot mask the colorful beauty of this place.

Despite the looming presence of rain clouds, my first views of Sisimiut in daylight were impressive. The city is built on rock, with homes and public places perched high on different rock formations around the city. It is a place where ocean and mountains meet in a dramatic display of nature. Like in Nuuk, the houses are colorful. This Greenlandic tradition is a rather iconic representation of the country. I can already see this city has a lot of personality.





Sisimiut, Greenland

We had the chance to meet Dorthe Katrine, the Director of the Sisimiut Museum. She gave us a quick tour of the many buildings that make up the museum's campus. There you can learn about the Inuit and Danish cultures that have defined Sisimiut throughout history. We also saw the MANY artifacts that have flooded into the museum from a recent construction project that uncovered a midden (garbage area) from an early historical period. The preservation of these objects is unbelievable. Bone, antler, ceramics, glass, leather, metal objects some looking like they were placed in the ground just yesterday. How to preserve, study, and share this sudden influx of important artifacts will be a challenge for the museum. Overall, the tour of the cozy museum buildings and a warm coffee with the Director and her staff helped chase away the cold afternoon.



Hans (Archaeologist with the Greenland National Museum) and Dorthe Katrine (Director of the Sisimiut Museum) talking inside one of the museum's exhibit buildings.



Different exhibits at the Sisimiut Museum



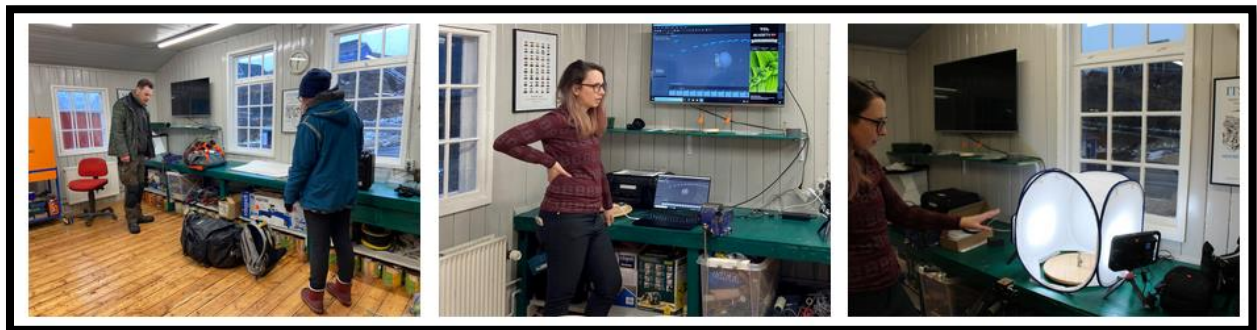
Just a small amount of the artifacts recently excavated from the Narsannguaq site in Sisimiut

Yesterday was also full of preparations for [the workshops](#) that Alice, Hans, and I are offering as part of Greenland Science Week in Sisimiut. Led by Alice, a digital artist, archaeologist, and animator, we spent yesterday setting up. We found a perfect workshop space to host the 3D digital events, where small groups of participants will see three different methods of 3D

photogrammetry and digital scanning. They will also hear ways to combine this technology with storytelling to share (and preserve) heritage. Planning a public event is always nerve-wrecking but adding an entirely new place and a language barrier adds stress. Still, we prepped as much as possible in anticipation of the events that will start today.



Alice looking through the museum's storage rooms for artifacts to use in the workshops.



Prepping for the workshops

Sisimiut Katersugaasiviat

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Utoqqamut Oqaluffitoqqami oqalut-tuaqattaatsitsineq

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Marlungorneq 2. nov. 2021 nal. 19.00-21.00 Oqaluffitoqqami

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Pingasunngorneq 3. nov. 2021 nal. 19.00-21.00 - 3D atorlugu eriagisanik assilisat Sisimiut Katersugaasiviata suleqatai, Ilisimatusarnermi sapaatip akunneranut Science week-imi aammalu nunarsuar-mioqatigiinnit kingornumut angortin-neqartut tullut assilangersimasut ma-nartiniarlugit Sisimiut Katersugaasiviani in-mikkut sammisaqarniarpugut. Oqaluf-itoqaani oqalugiassapput Nunatta Ka-tersugaasiviani Allagaateqarfianiik, Hans Harmsen, PhD. aammalu, Alice Watterson, PhD. Duncan of Jordanstone College of Art & Design, University of Dundee-miit, aam-malu Katie Grow Allen, PhD. State Univer-sity of New York at Potsdam-imiit, taakku-ut saqqummiutissavaat Kulturikkut Kul-gorussat teknikki aaliangersimasoq ator-lugit 3D atorlugu peqataasut assersitassat suliarineqartarnerat.

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It's always fun to see your name in a newspaper!

Today will be a full day. After the workshops, Hans, Alice and I are giving an evening presentation on our collaborative project melding together 3D technology, virtual international learning, and Greenlandic heritage. Giving a presentation that needs to be simultaneously translated can *also* be a bit stressful. Have you ever given a presentation to an audience you didn't share a first language with? *Applying Anthropology* students, can you imagine presenting on the impact projects you are developing to a room full of professionals from a culture or language different from your own? What do you think that experience would be like?

Meeting the People of Greenland

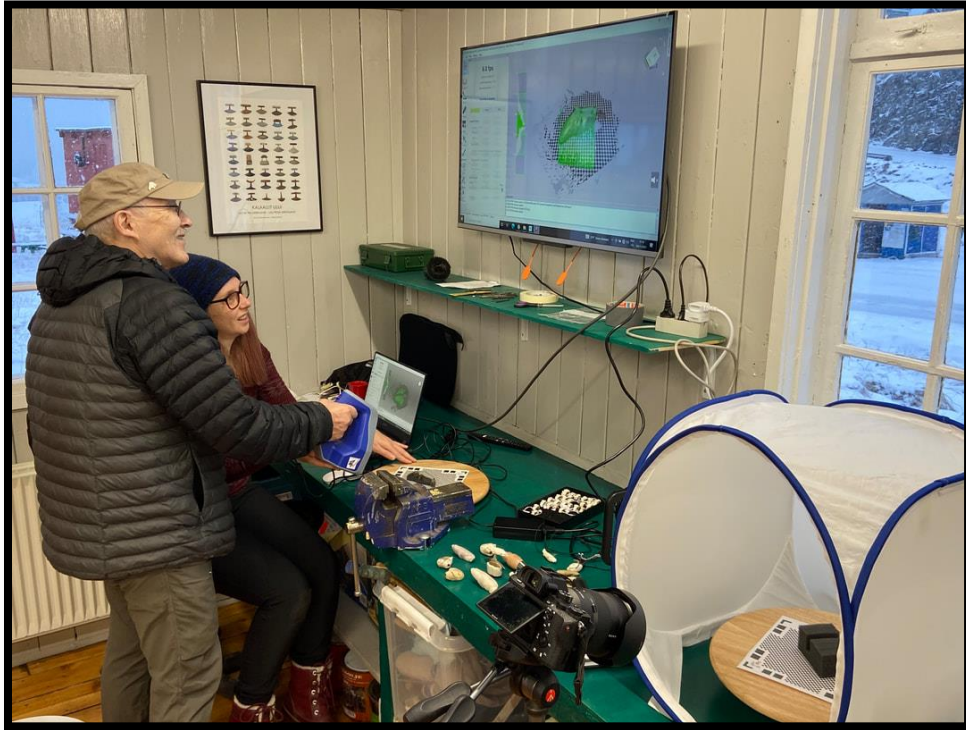
November 4, 2021



Some of my students expressed curiosity in the everyday lives of Greenlanders. So when I can, I would like to introduce you to some of them. First, meet Barse Lyberth Svendsen, Artist (*'Kusanartuliortoq'*) here in Sisimiut, Greenland.

This morning, as big fluffy snowflakes fell from the sky blanketing Sisimiut in its proper winter coat, we opened our workshop to anyone interested in learning about 3D scanning and digital heritage methods. Our first visitor was Barse. He brought with him some of the traditional art he produces from local materials. Barse had the opportunity to 3D scan a few of the pieces he sells, including a carved crochet needle, pendants, small carvings, and an ulu, a traditional Inuit knife. With Alice's help, he now has 3D scans of these objects to put online. While waiting for the scans to process, we were able to get a bit of a life story.

Barse started his career as a bus driver. Twenty years ago, a back injury made that difficult. He turned to art and now has a shop where he sells traditional Greenlandic art. His work uses traditional material from the environment, including reindeer antlers, walrus and narwal tusks. Given the protected nature of these materials, the right to use them is reserved for Greenlanders only. He sources the material for his art from local hunters who are allowed to hunt a certain number of these animals each year. In addition to creating art, he teaches traditional art methods to communities in Sarfannguit and Itilleq, two settlements nearby.



Greenlandic artist Barse Svendsen learning to create a 3D model of his art that can be shared online.



Figurines and an ulu (woman's knife) made by hand from traditional Greenlandic materials.

Snowfall and an Arctic Sunset

November 4, 2021



I awoke this morning and the view out my window was magnificent. Powdery snow had fallen everywhere. As the rain clouds cleared and the snow came, a quiet calm morning followed by a surreal sunset in the afternoon made for a perfect day. Now this is what I expected of November in the Arctic Circle.

The snow may have made getting around a bit trickier today, but it was so pretty I barely minded. With a low level of planned activities, I was able to breathe in the arctic air, and enjoy seeing the town as it often looks in late fall and winter. The snow clings to rooftops and the textures of the mountains are visible even from far away. The water in the harbor was more visible with the rain cleared as well. The icy water was calm, with colors that changed by the minute as the sun rose and then set again in early afternoon. Without wind, the wintry weather was welcomed. While I have more to share about our ongoing work, tonight I just need to share the quiet beauty of this day.



Looking down at the harbor through a whale bone arch



A snowy day in Sisimiut, Greenland



View from my hotel room window.

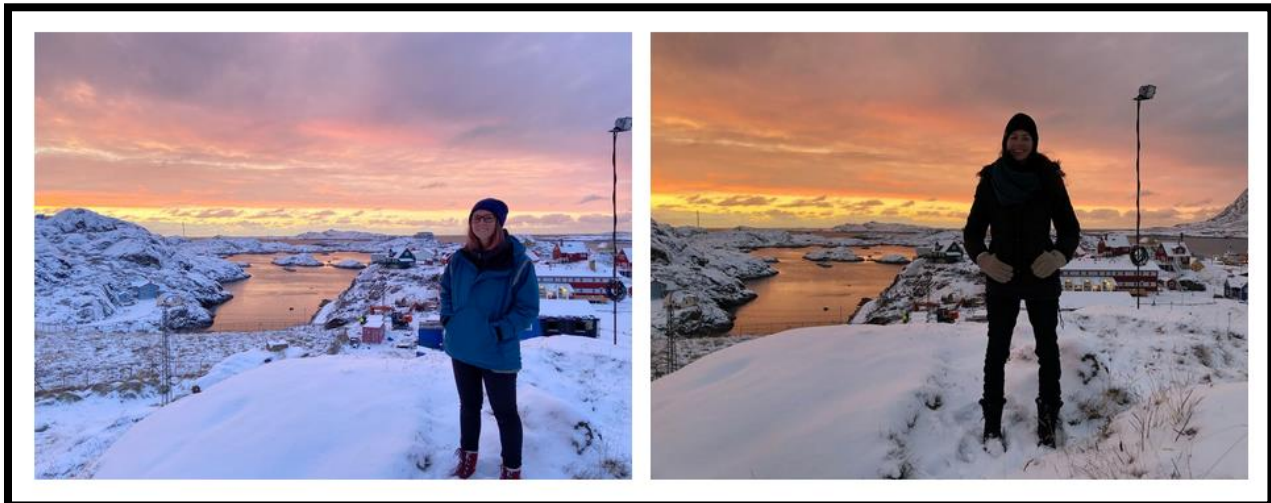


Around 3:15pm the light in the sky started to transform as the sun prepared to drop



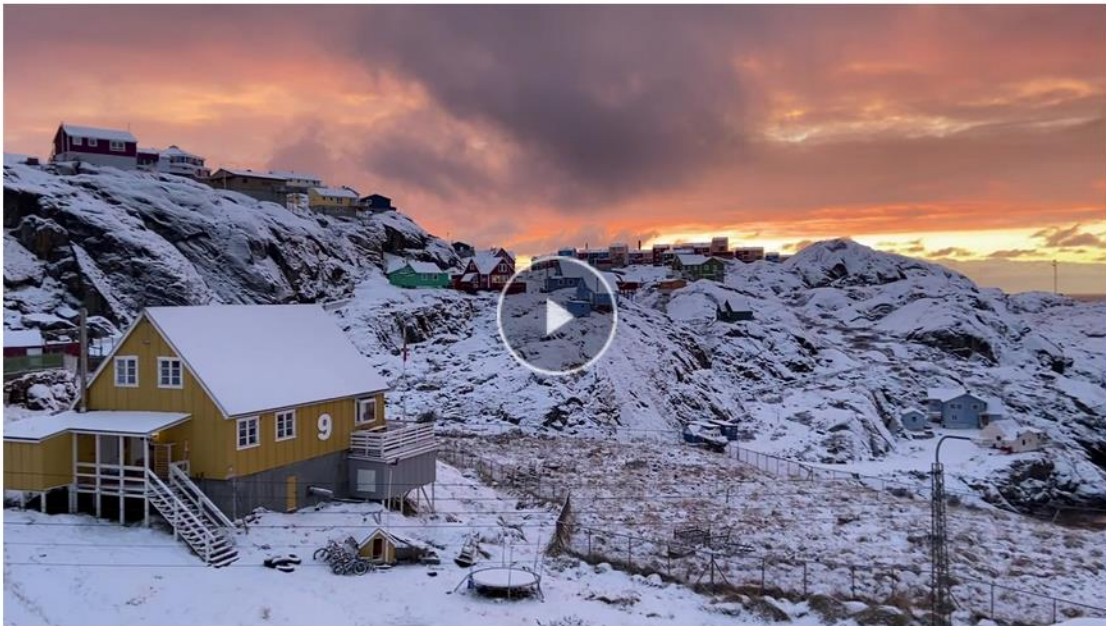


Around 4:15pm the light really transformed the sky





The sun setting on the coast in Sisimiut, Greenland



Watch these videos online at: <http://www.kathryngrowallen.com/virtual-field-trip/snowfall-and-sunsets>

Sarfanguit and the UNESCO World Heritage Area

November 5, 2021



Yesterday was a rather special day. We had the opportunity to see a part of Greenland that not many visitors have been to yet. Sarfanguit is a town accessible only by boat ride through a choppy fjord cutting inland from Sisimiut. As a part of Greenland Science Week, we joined a small group of other professionals to share projects about Greenlandic heritage with the citizens of Sarfanguit.

Sitting about 35 km from the city of Sisimiut, the settlement of Sarfanguit is located inside the new [UNESCO World Heritage area](#). Back in summer of 2018, UNESCO inscribed the Aasivissuit-Nipisat cultural landscape. This Inuit hunting ground has been shaped by human activity for over 4,200 years. From the ice cap to the sea, the landscape is the newest of three UNESCO sites in Greenland. It is only in beginning stages of being ready for visitors. Being a living community inside the site gives inhabitants of Sarfanguit a unique position. It also means they should be involved in the development of cultural heritage associated with their home. Currently, work to develop sustainable and responsible tourism is underway. One plan is to reroute the [Arctic Circle Trail](#), a legendary 160km (~100 miles) backcountry trail that the adventurous sort love to hike. Slight changes in the trail will bring visitors into the UNESCO World Heritage area and to Sarfanguit. It also may allow travel by all-terrain vehicles. In a few years, this small community without a single place to spend the night may look much different.

The day was perfect for water travel. The sun was shining and the wind was calm. We boarded a small boat and powered through the fjord. It's not a ride for those easily sea-sick, but it also wasn't particularly horrible. The only uncomfortable moment came when the boat started

beeping angrily....and then stopped. Those driving it huddled around the control panel, scratching their heads. My stomach sank, as I look around and saw nothing but icy waves and desolate mountains. I didn't have the chance for full panic to set in, as it took only a couple of minutes to start the boat back up. But it did make me very aware of how much bigger of a concern something like boat engine trouble can be here. I can't even imagine what its like if you're out when an unexpected storm rolls in. You are more at the mercy of nature here in Greenland.



The boat that took us to Sarfannguit

As the boat pulled up to Sarfannguit, we were greeted with an incredible site. A gathering of colorful houses belonging to roughly 90 inhabitants were perched on rock formations. There is not a spot in town lacking the breathtaking view. Flocks of seagulls sunned themselves on the rock outcrops and little fishing boats bobbed up and down in the calm waves. We carefully unloaded onto the icy dock and were thankful to see someone had come down to the shore with an ATV to ferry up equipment. From the boat launch, it was a steep climb up to the main part of town, but each step brought a new aspect of the unforgettable views into focus.



View of Sarfanngut from the boat dock



A main street in Sarfanngut



Views around Sarfannguit, Greenland



A view from Sargannguit's school house

We set up the 3D workshop in the town's schoolhouse but only had a few visitors. We rather expected this since we were there during the day on Friday. I did have the opportunity to get a quick interview with three different people I'm looking forward to sharing in a "Meeting the People of Greenland" post coming up.



A room with a view provided a great place to show people the 3D technology and have a few conversations about heritage and the UNESCO site.



A few quick interviews to give readers more Greenlanders to meet.

After our workshop, we headed over to another community room where other researchers we traveled with were sharing their work with a small group from the community over coffee and sweets. Before we were due to board the boat back to Sisimiut, Alice and I took a walk to the top of the settlement. Up there we found the community burial ground, a helicopter pad, and a stunning art installation. The Qaammat Pavilion was constructed by Architect Konstantin Ikonomidis in 2019 to be part of the UNESCO landscape. The glass structure is made up of 5 tons of glass bricks and is placed in a spot that welcomes visitors arriving from that side of the fjord.



As the sun went down, we had to board the boat back to Sisimiut around 5:30. By then, night had fallen, and we made our way down to the dock in darkness. As the boat pulled away, the settlement was barely visible, receding into its mountainous backdrop. We flew through the fjord back to Sisimiut. Halfway through the trip, we were rewarded with something Alice and I have been hoping for: an appearance of the northern lights. The sunny, clear day had procured perfect conditions for sighting the legendary phenomenon that lights up the northern world in winter months. As we journeyed through the fjord, green coils of lights moved through the sky. The boat captain graciously stopped when they were at their brightest, encouraging us to venture out of the warm cabin onto the back deck. The legend here in Greenland is that the dancing Northern Lights are football [soccer] players using severed human heads to play their game. You are warned never to whistle when the lights are out, lest you invite the spirits down to collect *your* head. Needless to say, as we sat in wonder at the Aurora Borealis (and fiddled with our phones to see if capturing them was actually feasible), we were silent. No whistling to tempt fate that night.



The Northern Lights over the fjord

This visit to Sarfannguit and my first experience with the new UNESCO World Heritage site left me with so many thoughts and so many questions. What is it like to grow up in such a small settlement, so physically distant from other communities? What will Sarfannguit be like in a few years, as the UNESCO site becomes more developed? How many tourists will come? Can Greenland protect this place and still share it with the world? How might the quickly changing climate affect the Inuit hunting ground? How might it impact the citizens of Sarfannguit? What challenges do all UNESCO World Heritage sites face, in their work to preserve human and natural history? Which of those challenges will be most pronounced for Greenlanders? Everything we talked about in my *Applying Anthropology* class about cultural heritage and public archaeology came rushing back. But teaching it as an abstract concept versus *standing in it* are two different experiences. Suddenly, the questions I always ask my students about protecting these unparalleled places of human and natural history felt so much more complex. And I don't have any answers.

A Northern Lights Showdown

November 6, 2021



Last night, the Northern Lights graced us with their presence as our boat flew through the icy fjord connecting Sarfannguit with Sisimiut, Greenland. We stood on the back of the boat, idling just so its passengers could get a good glimpse of the lights. I managed to capture this natural beauty on my iphone. Alice, digital guru extraordinaire, did not. I rubbed it in the rest of the night. Tonight, the Northern Lights reappeared and while I retreated to my hotel room, Alice snuck back outside and sought her revenge.

So excited that my iphone was able to capture the swirls of green light that illuminate the Greenlandic sky, I produced this picture. Oh, how proud I was.



My picture of the Northern Lights

Tonight, as we walked back from the UNESCO World Heritage Conference where we spent the day networking, workshopping, and presenting (full report soon), we spotted the Northern Lights again. I retreated to my room exhausted, but Alice had other plans. Armed with one of her DSLR cameras, she went back outside. She just sent me her shots.



Alice's photos of the Northern Lights

This is a Northern Lights showdown.

So...who won? (I can feel the betrayal already).

The UNESCO World Heritage Festival: Weekend Recap

November 7, 2021



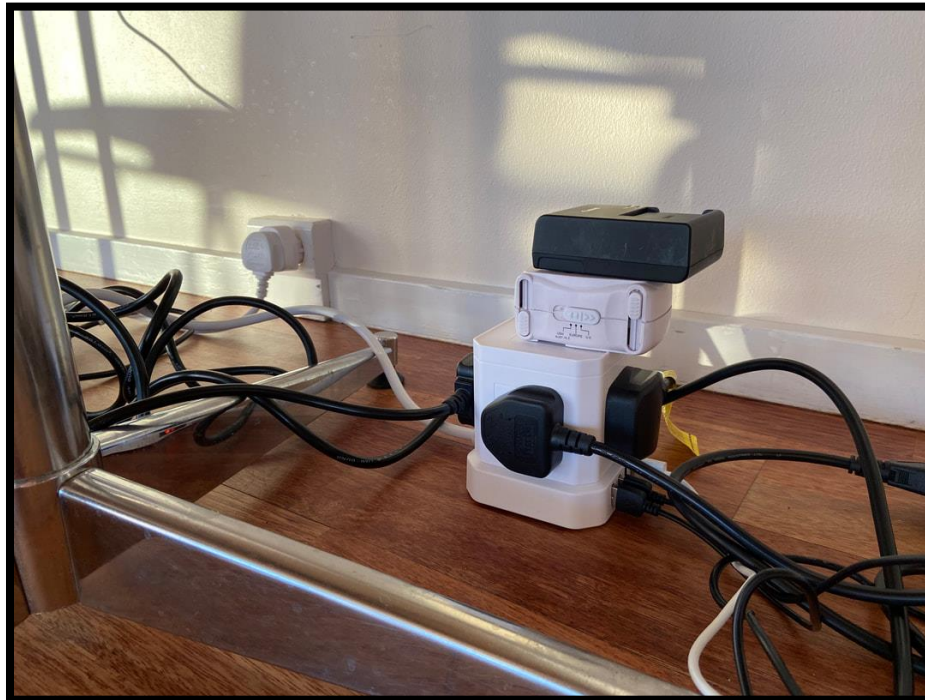
This weekend Sisimiut hosted a UNESCO World Heritage Festival. For two days, researchers doing work related to the new Aapasait-Nipisat UNESCO World Heritage site shared their work in *Taseralik*, the city's cultural center. Here is a quick recap of some weekend highlights. For two days, a small conference brought researchers from different disciplines together to share their work in and around Aasivissuit-Nipisat, the Inuit Hunting Ground between Ice and Sea. Archaeologists, Environmental Scientists, Architects, and others shared their projects. We were a bit limited in our participation, as the research was communicated in Greenlandic and Danish. When it came time for us to present, our words were simultaneously translated into both languages so that the split audience could follow. I was a bit nervous hearing the translator would throw me off, but I barely noticed. We also had the 3D Heritage workshop in the lobby both days (too close to the coffee and cake, so much caffeine and sugar consumed). The 'drop-in' workshop model provided the opportunity for great conversations and meeting people from these diverse projects all focused on Greenland. Often, the benefit of attending a conference is really the chance to dialogue with other researchers. Your presentation almost becomes secondary. This was no exception. As the three of us are here trying to explore opportunities for the future, talking to people is exactly what we wanted to do.



Left: Hans introducing our collaboration; Right: Alice's presentation



The 3D workshop set up



An American battery charger, plugged into a UK adapter, plugged into a UK power strip, plugged into a European adapter, plugged into a Greenlandic electrical outlet. International collaboration at its finest.

At the end of the research presentations, we also had the chance to see a demonstration of [*Allunaariaqattaarneq*](#), an ancient Inuit fitness training to build strength and flexibility useful for kayaking. Many of the moves simulate rolling techniques when a kayak is capsized. It's really impressive to see in person.



In addition to the events of the conference, I also had the opportunity to do some casual interviews in pursuit of allowing you all to meet more Greenlanders. I was given a tour of *Kalaallisuuliornermik Ilinniarfik*, the school for traditional Greenlandic clothing production. One of its teachers, Pituaq Maria Kleist, sat down with me this morning and told me all about their work. I am so excited to share more about the school and the revival of traditional skills in the next day or so in a full post.



Pituaq Maria Kleist, teacher at Kalaallisuuliornermik Ilinniarfik

I also had a chance to sit down with two women vital in running the Sisimiut Museum and the events we've been involved in this week. They shared their work, as well as their hopes for the future of their institution. Video footage of my interview with them is coming up soon as well!



Interviewing Dorthe Katrine Olsen and Paninguaq Boassen from the Sisimiut Museum

It's been a full week. Tomorrow we fly back to Nuuk for the second week of Greenland Science Week back in the capital. Fingers crossed it's a smooth plane ride south. As we leave the Arctic Circle, I am quite sad to leave behind this picturesque Greenlandic city. It may be cold here, but this town is a cozy place filled with warm people, interesting work, and unbeatable views.

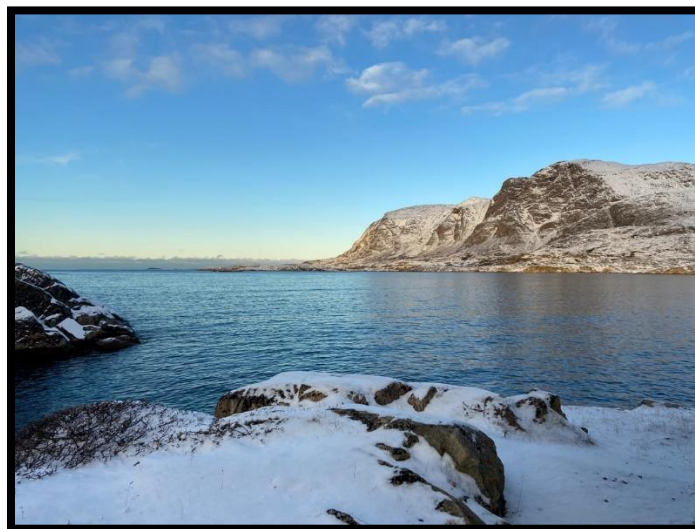
A Return to Nuuk and Thoughts on Change

November 8, 2021



Today was a travel day. We packed up in Sisimiut, said goodbye and headed south. It took two flights, with a stop in the town of Kangerlussuaq, but we made it back to Nuuk with a blue sky and smooth winds.

This morning we bid farewell to Sisimiut, stopping to say goodbye to the Director of the Sisimiut Museum before we left. The day was calm, affording great final views of the harbor.



A calm morning in Sisimiut



A boat docked in the harbor



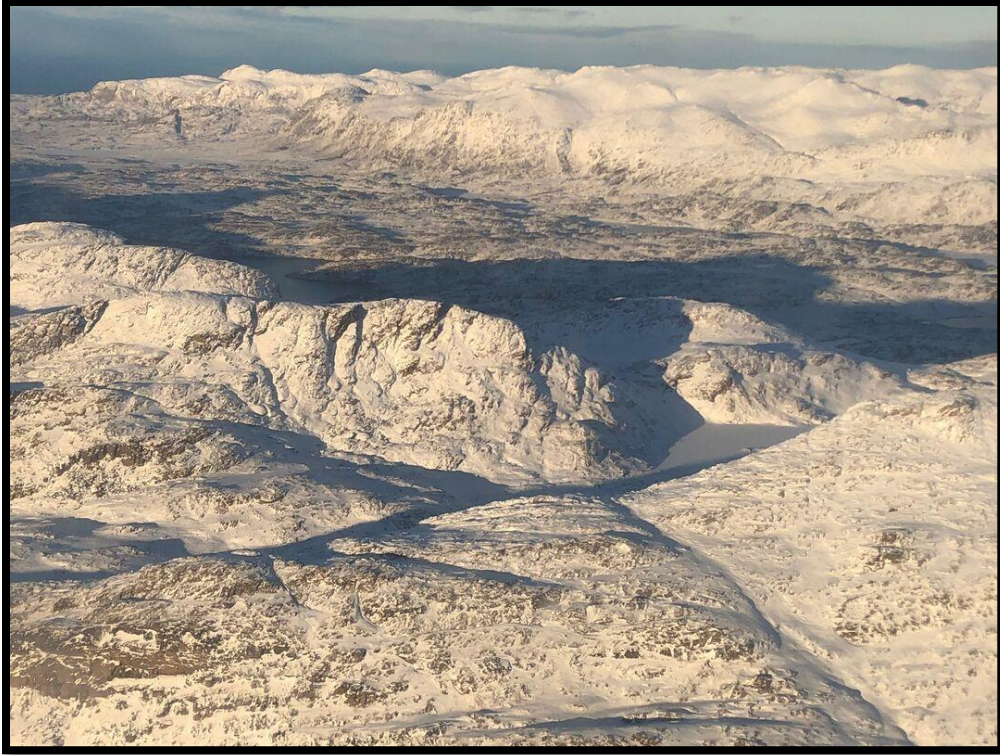
Our luggage seems to be growing....

The two plane rides (first to Kangerlussuaq and then to Nuuk) were uneventful. The day spent in Greenland's quiet, small airports reminded me of a conversation I had this week about the planned expansion of Nuuk airport. As I discovered when booking this trip, currently you can only fly into Greenland from Iceland or Copenhagen. Only small planes can land in Greenland due to the size of landing strips and airport capacity. Expansion due to complete in 2023 or 2024 will extend the runway in Nuuk and make it so that bigger international carriers can have routes to and from Greenland. Its not only the airports I've been in this week that will bring more visitors. Earlier this year, a carnival cruise to Greenland was advertised for 2023. It sold out in less than 48 hours. So much of the conversation this past week has been on tourism and the changes it may bring. Greenland is preparing for visitors, by ship, by plane, and, in the case of the Arctic Circle Trail, by foot. The work to balance a more open Greenland with the desire to protect and preserve what is so special about this island nation seems to be on everyone's mind.



Our Air Greenland plane refueling during our stop in Kangerlussuaq

Of course, its not just tourism that may change Greenland. As mentioned in a [previous post](#), arctic countries will experience climate change differently than other nations. A continued rise in global temperatures will impact the northern world in profound ways. Flying over the perfect landscape of uninhabited earth between cities made me wonder what this same route will look like if I return in twenty years. In fifty years? How much of the snow and ice that creates this frozen landscape will be gone? And what will be the ripple effects on the animals, land, plants, and people of Greenland? These themes, tourism and climate change, seem to come up a lot in my thoughts and conversations.



The uninhabited land between cities in Greenland seems to stretch on forever



Views from the plane flying South from Kangerlussuaq to Nuuk

Deep thoughts aside, the day was easy and enjoyable. The forecast this week in Nuuk looks pleasant and we have plenty to keep us busy with some small community events related to Greenland Science Week (including another presentation Thursday). Alice and I ended the day with a home cooked meal (cooked by her). Traveling can mean you go a while without home cooked food, so it always feels special to end the day this way.



Dinner by Alice

3D Digital Heritage

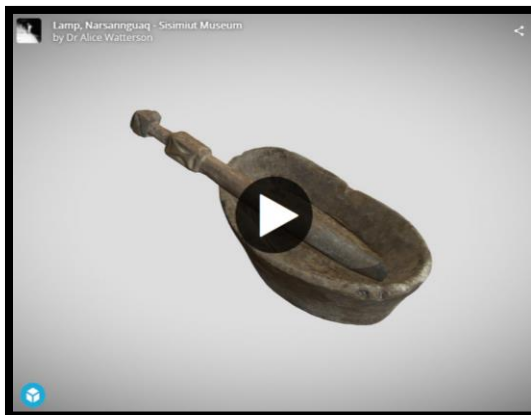
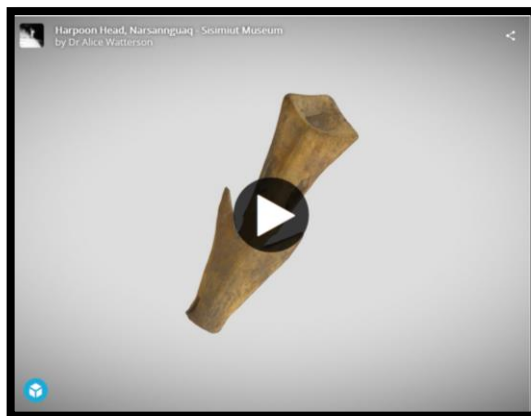
November 9, 2021



This week, as we juggle other events associated with Greenland Science Week, Alice, Hans, and I have been trying to pull together some sort of summary of last week's work. We are also thinking ahead, armed with new knowledge on culture and community heritage, to dream about what comes next.

As mentioned a few times, last week the three of us hosted 3D heritage workshops, while conducting interviews, giving presentations, and holding conversations with community members in Sisimiut and Sarfannguit. While Hans has been working in Greenland for many years, Alice and I are new here. We came wanting to share our ideas about community science, digital heritage, and international learning, but we also came wanting to learn from Greenlanders. These workshops, presentations, and conversations allowed us to gain insight into the kinds of projects possible going forward, as we discussed expanding this international collaboration and working with the community in the future. Back in Nuuk, Alice and I have both admitted our heads were spinning with thoughts and ideas. We're not quite sure what's next. We are in the process of putting together some sort of collection of images, scans, videos, and stories from last week to craft a narrative that somehow ties it all together. This will be great to share with you all, as well as those that funded our time in Sisimiut and Sarfannguit (primarily the United States Consulate for that part of the trip). We have been working on this today and are not yet done, but I wanted to share a few of the 3D scans that came out of the community collaborations. Some of these were completed by members of the Sisimiut/Sarfannguit community, the outcome of their experience learning the technology. While the production of scans is not necessarily the final outcome of a digital heritage project, they are still pretty cool by themselves! They give you a great look at some of the artifacts that were brought up during the Narsannguaq excavation this past summer, the collection that filled Sisimiut Museum with so many well-preserved artifacts. As you can see, the artifacts represent

both communities living in Sisimiut historically, Inuit and European. Having 3D scans of these objects will allow the museum to share them with others in Greenland as well as the international community. Tonight, I wanted to share a few with you, as well as ask you to consider how this digital technology can be used to share a history unknown to many outside this Arctic city. How can digital technology be used to share the stories of Greenland's past? How can it be used to preserve that past for future generations to experience? How might it be used in excavations where so many artifacts are uncovered that it overwhelms a local museum, who is suddenly challenged with the study, curation, and preservation of so many vulnerable artifacts? The technology is cool...but it's what we do with the technology that makes it impactful!



View these scan and others at: <https://sketchfab.com/DrAliceWatterson/collections/sisimiut-museum-greenland-science-week>

Meeting the People of Greenland II

November 10, 2021



While in Greenland, we've had the chance to meet a number of Greenlanders working in different jobs. You've already met [an artist](#), but I have more people to introduce to you.

Below are some rough videos, giving you the chance to meet two more Greenlanders. They are nothing fancy (I will not be pursuing work as a film-maker) and I only have rough translations at this point. But I didn't want to miss this opportunity, with students and others actively engaged, to show a few more faces of Greenland. Here are two professionals that work in education. They preferred to speak in *Kalaallisut*, the West Greenlandic dialect of the Eskimo–Aleut language spoken in Greenland. Consequently, you also have the chance to hear a language many of you have never heard before.

As my students are learning, many world languages such as those in the Eskimo-Aleut language family are endangered. A vast majority of the over 7000 world languages are on track to go extinct in the next 100 years, as their last speakers pass. Projects around the world are seeking innovative ways to slow or stop this loss of linguistic diversity, with projects from [UNESCO](#), [National Geographic](#), [Native Languages of the Americas](#), [The Rosetta Project](#), and many more. Monitoring efforts include categorizing languages by level of threat, anticipating the likelihood that they will disappear in our lifetime. When you look across [endangered language maps](#), you see that *Kalaallisut*, while at risk, is faring better than other arctic languages, with significantly more speakers and a lower risk designation. While there are many factors that influence the vitality of a language, the fact that *Kalaallisut* is the national language affects its perseverance. All schools teach in *Kalaallisut* as well as Danish, a policy switch from the old tradition of prioritizing Danish instruction only. This does not mean that the English-speaking world will

have trouble communicating with Greenlanders, as many here learn English as a third language and use it well. Prioritizing *Kalaallisut* while still learning languages useful for communicating with the international world will keep it a living language. My applying anthropology students have been learning about anthropological efforts to protect endangered languages; this is a great case study to connect our course lessons with the real world.

Without further instruction, enjoy hearing from two more Greenlanders and listening to the words of the *Kalaallisut* language.

Danialeeraq is the principle at the only school in Sarfannguit. He moved to the small rural settlement three years ago to be a leader in education here. In the following clip, he switches to *Kalaallisut* to better articulate a question I asked him earlier. When asked what he loves about Greenland, he shares that it is a special place to him, in his own language. He sees himself growing old here, buried in this land forever.



To view this video online: <http://www.kathryngrowallen.com/virtual-field-trip/meeting-the-people-of-greenland-ii>

Jakobine is the head office administrator of the school in [Sarfannguit](#), the small settlement inside the new UNESCO World Heritage area. In this brief clip, she shares how she was born and has always lived in this town of roughly 90 citizens. She also shares a few thoughts on the benefits of visiting Greenland. From the hunting and views of the landscape in the summer, to the cold but beautiful winters, Greenland is great year-round (although, she warns the winters ARE tough on some people!).



To view this video online: <http://www.kathryngrowallen.com/virtual-field-trip/meeting-the-people-of-greenland-ii>

So Much to Learn

November 11, 2021



While Hans has been working in Greenland for five years, Alice and I are new here. Even more, this is my first time working in *any* Arctic context. As such, the learning curve is steep. Over the course of two weeks, I have been surrounded by incredible science and research, of which I am only in my infancy of understanding. Between the events of Greenland Science Week and talking to Greenlanders involved in many areas of science history, and culture, I am discovering there is so much to learn.

The events of Greenland Science Week and the Arctic Research Conference has been showcasing research, art, business, and development in many areas. Last week in Sisimiut, there were small lectures and the sharing of many different projects both online and in-person. It was like a crash course in arctic history and contemporary society for this newcomer.



The Activating Arctic Heritage (AAH) team sharing archaeological finds in Sisimiut.



A presentation on the new visitor center planned in Nuuk.

This week in Nuuk, the small events associated with Greenland Science Week continued, alongside the Arctic Research Days Conference, and Science Cinema. Even more work was highlighted, showing the variety of topics in focus right now.



A powerful talk on how to craft true collaborations between Indigenous Greenlanders and outside researchers



A look at the free presentations planned on the afternoon of Nov 11th. Which would you attend? (You should probably pick the last one...)

The presentations have been both specific and overarching. Projects looking at fine grained data on topics such as narwhal conservation alternate with bigger picture presentations on the direction of Greenlandic research in general. New initiatives are being announced, from new degrees in development at the University of Greenland- Ilisimatusarfik to the drafting of Greenland's National Research Strategy. Overall, it feels like this country is at a major turning point and everyone can feel it. Change is coming, both inside and outside. Researchers and the public alike are trying to ensure those changes are beneficial to Greenlanders. Many presenting have spent their lives working and studying in Greenland, either as expats who moved here, outside researchers or as Greenlanders indigenous to this country. As for me, I am only just beginning to learn the unique cultural context, history, and experience of Arctic populations. A bit of advice for my students, some of whom may go on to be researchers, scientists, managers and professionals working in other cultures. Be prepared to acknowledge what you do not know when you first arrive to a new place. Studying a culture from afar and really knowing it are very different things. If your education and career bring you to a new place, be prepared to spend a lot of time observing. Listen, rather than talk. No matter how educated or experienced you are, if you start work in a place you are not intimately familiar with you will have a lot to learn. This is not to scare you away from venturing out of your professional comfort zone...quite the opposite. In our globalized world, you should seek opportunities to work in international contexts whenever you can. You can't imagine how powerful of an experience it is to put yourself in a brand-new place and learn to adapt. But be prepared to step back and learn. You may plan one thing, only to arrive and find out you need to pivot completely. The best professionals prepare themselves to be resilient and never stop learning. I can't tell you how many times in my life I have thought, "I have so much to learn". Long after you graduate you will be a student. Be ready for that. If you don't let it take you by surprise, it can actually be enjoyable to be in the learning seat again, long after you've graduated.

Reviving a Lost Art in the Inuit World

November 12, 2021



A steep trek uphill past a collection of colorful apartment buildings brings you to a small, nondescript red building. Little signage tells you what happens behind the white door that leads you into *Kalaallisuuliornermik Ilinniarfik*, the only school for traditional sewing in the Inuit world.

Meet Pituaq Maria Kleist, teacher (*Ilinniartitsisoq*). Pituaq was once a student in the two-year program that teaches Greenlanders the skills needed to create the traditional clothing so important to their culture. Now she teaches others with the hope of reviving this lost art across the Inuit Arctic. Everyone who goes through the school leaves with the skills needed to create and teach others. Every part of the process is important, from preparing the seal skins used as raw material, to designing the hand-sewn displays of color and pattern. When they graduate, each student will have created a full outfit for a woman, a full outfit for a man, as well as two children's sets. They keep their products, but more importantly, they take with them important cultural knowledge to pass on to future generations.





To view this video, see post online at: <http://www.kathryngrowallen.com/virtual-field-trip/reviving-a-lost-art-in-the-inuit-world>

As I toured the school last Sunday, I could see desks filled with in-progress work of the students. To protect their designs, I was asked only to take photos from afar. String made from natural fibers and beeswax and scraps of seal skin and leather in the process of being formed cover the work spaces. Around the room, finished pieces hang in inspiration to those completing work that will take them the better part of two years to complete.





Workspaces at KalaallisuuIornermik Ilinniarfik

In addition to seeing the workspace, I had a chance to hear how the clothing is made. It starts with preparing the traditional raw material, seal skin. The *ulu* or women's knife is an important tool in this process that includes soaking, scraping, drying, and preparing the seal skins for more than a year. Here is a quick video of Pituaq explaining the use of the *ulu* in their work.



To view this video, see the post online at: <http://www.kathryngrowallen.com/virtual-field-trip/reviving-a-lost-art-in-the-inuit-world>

The *ulu* is an important symbol of Inuit culture all over Greenland. I learned how regions have different traditional designs, a typology that helps you identify the origins of someone from the shape of their *ulu*. These knives are used in a lot of traditional and modern activities, including this hand-processing of seal skins to make clothing.



To view this video, see the post online at: <http://www.kathryngrowallen.com/virtual-field-trip/reviving-a-lost-art-in-the-inuit-world>

The colorful outfits created in *Kalaallisuuliornermik Ilinniarfik* are an important part of Greenlandic culture. Each Greenlander has one, reserved for special occasions. Marriages, religious ceremonies, even the first day of school calls Greenlanders to put on the customary clothes and celebrate in a display of color and traditional materials. Often, the style of the outfit communicates meaning. Distinct traditions around Greenland have resulted in slight variations between the outfits from West Greenland (*kalaallisut*), East Greenland (*tunumiutuut*), and Northwest Greenland (*arnatuut*). Historically, families had traditional designs that acted like a family crest, designs some have lost over the years. On women, a yoke of colorful beads lays over a tunic (*anorak*). The woman's outfit also includes pants that stop at mid-thigh to make room for tall, lined sealskin boots called *kamiks*. Mens' outfits are a bit less colorful, but include hooded *anoraks*, pants, and *kamiks*. The processes required to make these traditional clothes take time and skill. At *Kalaallisuuliornermik Ilinniarfik*, you learn every step needed to produce this wearable expression of Inuit culture.



Pituaq shows me an example of Kamiks, traditional seal-skinned boots

While touring the school, I learned a bit more about the background of these pieces of art. Embedded in them is a complicated history of cultural contact, changing what is deemed traditional to Inuit communities. The color and beading you see in the outfits were introduced

when Europeans arrived. A distinct shift in the design of clothing was the result of contact with outsiders. Likewise, I learned a bit more about the history of the styles. Patterns throughout the clothing were often embedded with information in the past. Certain colors could signal a social status of the wearer, a status designated by the colonial government. For example, Pituaq explained that colors could be used to identify unwed mothers and others treated as lower in social standing. Likewise, some of the designs were inspired by rebellion. The Inuit tattooing tradition that Pituaq now wears proudly on her arms and face was outlawed when Europeans arrived. Some women chose to quietly rebel, weaving the tattoo designs into their clothes. As such, a piece of clothing that today looks like a cheerful display of Greenlandic-ness also encapsulates a complicated history and clash of cultures. When you come to *Kalaallisuuliornermik Ilinniarfik*, you learn the traditions both before and after European influence, designing clothes that display as much history as they do craft.

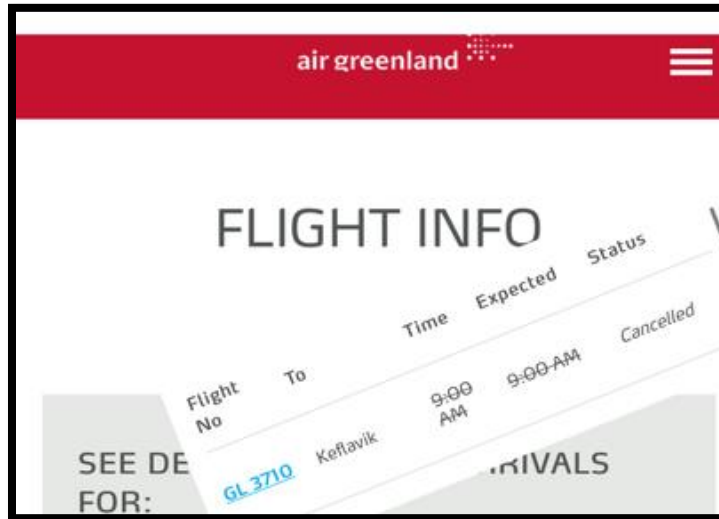


Traditional clothing pieces on display at the school

As I sat and talked with Pituaq last Sunday morning, it became clear that her ambitions go beyond teaching the women (and a few men) who enroll at *Kalaallisuuliornermik Ilinniarfik*. She sees the production of these pieces as a celebration of her culture but also a channel to share important historical information. Her hope is to reach beyond the boundaries of Sisimiut and even Greenland. Much of the traditions taught at this school have been lost in the Canadian and Alaskan Inuit communities. As such, she hopes their revival of these cultural practices will eventually move west. Many in Greenland find this work important given how few in the Inuit community know these techniques. The logistics of training people in this craft, however, creates limits. Despite this, teachers like Pituaq and others at *Kalaallisuuliornermik Ilinniarfik* will continue their hard work reviving this lost art in the Inuit world.

Learn to Go with the Flow.

November 13, 2021



I am not someone who likes last minute changes to the plans. I like to know ahead of time where I need to be and when. International travel often demands I surrender my love of clear, consistent schedules. Above all else, international travel begrudgingly forces me to learn to go with the flow.

Last night we found out our flight from Greenland to Iceland was rescheduled from Saturday morning till Sunday morning. That small change unraveled all travel plans, as other flights scheduled to get Alice and I home were now impossible to catch (and not part of the same airline). It also meant our COVID tests, carefully scheduled to ensure time for results but not too much time due to requirements, were void. We tried not to despair, but went to work fixing the travel itinerary now in shambles. I rebooked my flight from Iceland to the US. Alice canceled her car and hotel in Reykjavik since her one day layover had now disappeared. We redid our entry paperwork required to go to Iceland so that the government forms reflected our new arrival dates. And this morning, while it was still dark, I put on every piece of clothing I brought to wait in line for the testing center to open. Needing as much time as possible to get the results before the staff stopped work for the weekend required I brave frigid temperatures...and the mighty winds that downed all planes today. I was successfully in and out of the testing center and went back to pack up and unthaw. Good. Everything was fixed.

Not so fast. We were called by Air Greenland this afternoon to inform us of another delay...an extra *day and a half*. We are now expected to land in Reykjavik Monday night *after* all flights to Scotland and the US depart. That puts me in the US late Tuesday...but after flights from Boston to home have departed. Oh and that second round of COVID tests - no good again. Same for the

entry paperwork into Iceland. Quite truthfully...I have no idea when I will be home. My best guess is Wednesday, four days after planned. An extra four days till I can hug my kids.



Another four days from this kid is tough to swallow...(don't worry, we'll review North American geography when I get home) To view this video, see post online at:

<http://www.kathryngrowallen.com/virtual-field-trip/learn-to-go-with-the-flow>

We were moved to a hotel paid for by the airline (much appreciated, Air Greenland) and here we sit. Once again, I am forced to go with the flow. Accept the chaos. I seem to have a knack for difficult return itineraries, when my family, my home, and my coffee maker are calling to me so strongly. But as I've said before, working internationally forces you to adapt. You have to work out the tough situations. Accept the unknown and have confidence you'll get to where you are headed...*eventually*. A bit like life, I suppose. Messy, unpredictable, but ultimately heading in one direction or the other. And when travel (or life) throws you a curveball, you stay calm, you breathe deep... and then you find yourself a good bottle of local beer and wait it out.



Meeting the People of Greenland III

November 14, 2021



I had a chance to sit down with these guys last week. I thought they would bring a young perspective to my 'Meeting the People of Greenland' posts. I've included a short video so you all can meet Mike, Pauia, and Hans-lars as well.

Last week we had the chance to share some of the 3D technology with older students at GUX (*gymnasial uddannelse*) - Sisimiut. In the Greenlandic schooling system, this is a bit of a cross between American students' final years of high school and the beginning years of college. Below is a brief, informal interview. I saw this as an opportunity to introduce these guys and share their perspectives. One of the greatest gifts of travel is meeting people different from you. Often, tourism doesn't allow us the opportunity to connect with people this way, as visitors keep to a cruise ship or the tourist spots not frequently filled with locals. In my opinion, that is a major downside of most traditional travel itineraries. If you spend the time and money to go far, chatting with people who grew up where you're visiting can be provide much deeper insight than a guidebook. This is why longer travel programs like study abroad can be life-changing. Since none of my students can study abroad this year, I hope this virtual field trip and these brief introductions to the people of Greenland provide some sort of cultural connection. I hope they encourage you all to seek more international learning opportunities in the near future. Both my life and my perspectives on the world have been greatly impacted by the people I've met abroad. I so badly want that experience for each of my students. In the meantime, enjoy meeting a few more Greenlanders. Hear what it was like to grow up here. You may find you're surprised..not just at the cultural differences you hear about, but some aspects of life that sound familiar as well. If you get to travel yourself in the future, remember that a conversation with someone from another culture can provide you with a lasting memory. And that memory may end up more valuable than your souvenirs or your photographs of beautiful places.



To watch video, view this post online at: <http://www.kathryngrowallen.com/virtual-field-trip/meeting-the-people-of-greenland-iii>

Made it Back to Iceland

November 15, 2021



With blue skies and calm winds, we successfully made it out of Greenland and landed in Reykjavik, Iceland around 8pm local time. I am geographically further, yet mentally (and logistically) closer to home.

We had high hopes this morning when we woke up to sunshine in Nuuk. We checked the airport and saw some planes had taken off already and the forecast in Iceland was decent. Still, we decided to get another COVID test, knowing another unexpected delay would render the Saturday tests invalid (and we had no option to test on Sunday). We headed up in the frigid early morning and graced the COVID testing center with what we hoped was our final farewell.



Hoping it's our last time following the yellow dots keeping us apart from others waiting for COVID testing (plane delays required a lot of retesting for timing of test requirements)

That done, we ate one last brunch with Hans before he drove us to the airport. Even after we boarded and the engine started, we were afraid it would somehow be delayed. We kept waiting for the Greenlandic wind to grace us with her presence, so we couldn't get excited yet. But we took off and had a smooth trip east, over the rest of Greenland and down to Iceland.



Beautiful views from the plane until we disappeared into the clouds



Sketch by Alice: Traveling with an artist means watching her produce THIS in two hours of flight while you accomplish...basically nothing.

Landing in Iceland required a few steps including another pass through security (always delayed when one of you is carrying a structured light scanner), passing through two checkpoints to show passport, vaccine proof, COVID test results, and a barcode showing you filed your entry paperwork, and baggage claim. After all THAT a swing through the rental car line had us headed towards Reykjavik. We yelped with delight when we saw the Greenlandic Corona Secretary was working late tonight and answered our pleas for the extensive document needed to reenter our respective countries tomorrow. So we are officially ready to head home. Wish us luck. You never know.

On a separate note, a kind neighbor left the paper below in our mailbox over the weekend. I was in a Watertown newspaper! Always fun to see...even more fun that it's an actual *paper* newspaper. When my kids are older, this might be cool for them to have. I'm not sure they will have paper newspapers at that point, so this may really look like an artifact of the past.



Made it Home...Almost

November 17, 2021



Alice successfully landed on Scottish soil last night and I on American. I am not quite home yet, but almost. This must be the longest, most complicated return itinerary I've ever had...but its close to being complete!

Yesterday was an exhausting day, as international travel days always are. There were some delays, but mostly it went smoothly. No issues at customs, no problems with all the COVID and travel documentation requirements, and even my checked backpack made it in one piece. Most importantly, the plane took off and landed safely, something I was instantly thankful for after Alice sent an email from the Icelandic rental company. We are lucky we got out of Iceland without trouble.

Dear valued customer.

For your safety we advise about incoming weather alerts from the Icelandic MET office.
In south coast and eastern parts of Iceland you can expect hurricane force winds and snow storm !
Snow storm is expected to be severe, very poor visibility and dangerous driving conditions.

*Hurricane force winds and snow storm, we advise no driving in these conditions. Please adjust your travel plans!
Wind gusts from 20 - 40 m/s (72-144 km/h, 44-88 mph),
We do not recommend any travel in these areas until the weather has improved.*

Thankful to be back on home ground, I grabbed a rental car at Logan International Airport in Boston and decided to drive only one hour outside the city before searching for the nearest affordable hotel (thank you, Expedia app). It was only 8:45pm when I made it to the hotel and I probably could have driven farther, but I've learned that jet lag is a tricky beast. You may feel fine, but your senses are most definitely not. And seeing as I went back five hours as I crossed the Atlantic (a 29-hour day!) it certainly didn't feel like only 8:45pm. So, I took the safe route and spent the night in Auburn, MA. My internal body clock is currently very confused as it's been through three time zones in 24 hours (West Greenlandic, Greenwich Mean Time, and now Eastern Standard Time). I was not surprised that I woke up on my own around 5am. When it was clear I would not gain anymore sleep, I decided to write this update then head out. I still have a four-hour drive to Syracuse Airport where I will return the rental car and be picked up by my husband. We will then make the two-and-a-half-hour trip north to home. As I said, longest return trip ever. After a few more COVID tests I will be ready to jump back into life. In the coming days I plan to post my concluding thoughts on this trip, some more of our outputs from Sisimiut and Greenland Science Week, and maybe even some preliminary plans for the future. Hans, Alice, and I were already dreaming up what comes next before leaving Greenland. I will need a few days to recover and spend with my kids...but that wrap up content will come!

The Future Role of Anthropology in Greenland

November 24, 2021



The class this field trip was intended for was an Applied Anthropology class. Because of that, I wanted to express some ideas regarding the role of anthropology in Greenland. After two weeks (okay, three with delays), I saw so much potential for my discipline. While arctic research seems to be dominated by the natural sciences, there is incredible potential for more social scientists.

Throughout my time in Greenland, I was given a brief glimpse into a huge range of topics. As an applied anthropologist, I couldn't help but notice all the potential for anthropology in the many areas of research, life, and work I was exposed to. As I mounted [a defense for anthropology](#) before I left, I want to end this trip circling back. For my students, anthropology colleagues, and those in fields that may benefit from an anthropological infusion, here are some thoughts regarding the growing potential for anthropology in Greenland.

Heritage tourism: The future of Greenlandic tourism was on everyone's minds. How can this island nation benefit from what is likely to be a huge uptick in visitors, without suffering the consequences of unsustainable tourism? This conversation was happening concurrent to talk about archaeology and cultural heritage. How can *archaeologists* help build sustainable tourism in Greenland? The [National Museum](#) has been exploring what a focus on heritage tourism can build. They are developing site specific guidelines for archaeological sites targeted by the tourism industry, as well as collaborating with community partners like the adventure guide school and cruise companies. Chatting with a cultural educator with Adventure Canada one evening, I learned how a combination of tourism management, an arctic guide certification, and an archaeology degree could be mobilized into a career in heritage tourism. Imagine if every cruise ship or tourism company visiting sites of archaeological importance hired an in-house

archaeologist. Archaeologists specializing in heritage tourism could help with decision making for companies striving to sell responsible travel (a growing trend, thankfully). They could also offer exciting opportunities to guests, many of whom would love to be educated while entertained. The tourism industry is monstrous. If archaeologists and anthropologists continue to infiltrate, it may mean better outcomes for the places of history people flock to each year.



Boats in a quiet harbor in Sisimiut that may one day see a lot of cruise ships.

Small museum management: Many of Greenland's museums, such as the one managed by the women in the video below, are small operations with limited budgets, personnel, and space. Despite these limitations, they have a huge job to do in the coming years. Thousands of archaeological sites have been identified and labelled at risk in the warming environment. Any efforts to save them will need to be matched by capacity to curate and care for the evidence of the past. As such, there is a huge role for anthropology, archaeology, and museum studies in this context.



To watch video, view this post online at: <http://www.kathryngrowallen.com/virtual-field-trip/the-future-role-of-anthropology-in-greenland>

Heritage craft revitalization: During this trip, I introduced readers to [Pituaq](#) and [Barse](#), two craft specialists whose work showcases traditional art in the Inuit world. The heritage craft industry all over the world is seeing traditional knowledge disappear. Some countries are actively [tracking it](#) and some institutions (like [Potsdam](#)) are actively reteaching it. There is much room for growth in these efforts. From what I can tell, there is no shortage of interest from people who want to incorporate the joy of craft into their lives, be it a skill from ancestral traditions or as a way to learn about another culture. The loss of tradition extends to [intangibles](#) as well. In Greenland, skills such as drum dancing and subsistence hunting are in-danger of fading with the current generation. While the loss of heritage craft is seen around the world, the loss of traditional knowledge in Greenland is more complex. There, its a part of a complex story of colonialism, economic repression, and social stigma. Indeed, indigenous communities around the world face a seemingly uphill battle against lost traditions. Here, anthropologists can help study the underlying factors limiting generational transmission of knowledge as well as partnering with communities to mobilize support (and funds) for revitalization movements.



Pituaq Maria Kleist, teacher at Kalaallisuuliornermik Ilinniarfik, the only school for traditional sewing in the Inuit world.

Climate change social science: All around Greenland, natural scientists are studying the dramatic shifts coming from climate change. But the social science front is quieter. There is significant room for more social scientists such as anthropologists to join research aimed at understanding and preparing for climate change impacts. The human factors must be considered. Likewise, there is a need to counter-balance Western, scientific narratives of environmental change and resource loss in the Arctic as well. In Greenland, Inuit communities have much to add to this research. Anthropologists around the world have played a role in amplifying efforts to combine scientific and indigenous knowledge. In Greenland, more anthropologists engaged in what is often called the 'co-production of knowledge' could grow these partnerships.



A calm day like this can change quickly. Even in the cities, you cannot escape the powerful environment surrounding you in Greenland

Business anthropology: I couldn't help noting that during Greenland Science Week, the business community was just as engaged as the research community. Of the many academic conferences I've attended, I think this is the first where this blend was so welcome. I heard talks from 'industrial PhDs', students pursuing research as a part of a specific industry or company. Their work is designed to be applied from the start. For example, I learned about the work of an industrial PhD student examining the science of food quality and storage limitations for seafood sold by Royal Greenland and another studying effective ways to alter tourists' behavior. Both were affiliated with an academic institution and a company. Likewise, a panel discussing how to make science matter included a professor, a scientific researcher, the director of the Greenlandic fishermen and hunters' union, and the Director of the Greenland Business Association. It is clear that scientific research is not just for the scientific community in Greenland. As such, I can't help but see a huge role for business anthropologists, professionals who provide human insights into the business world. They are a bridge between science and industry. They have the capacity to push more responsible economic initiatives by enticing companies to consider the human impact of their work, both in Greenland and elsewhere. Using anthropology, this collaboration between the economic and human sectors of society can continue to grow their often-tenuous relationship.



Science communication: There is incredible research being done in and around Greenland. Some of it reaches the public in great science communication pieces...but much of it doesn't. In a world where science communication has taken unprecedented importance, there is work to do in communicating the amazing work done by researchers in the Arctic. Anthropologists are trained in both science and cultural studies. They make excellent translators of science. Not insignificantly, they also make excellent translators to host communities. The people living where science is conducted are too often the last to learn about research discoveries. A better bridge between scientists and the local communities in Greenland could be built with the aid of more anthropologists.



Some of the public science talks associated with Greenland Science Week showing the country's dedication to increasing science communication in a nation receiving so much scientific attention.

Who are the anthropologists I think should step into these roles? Greenlanders. And non-Greenlanders. PhDs. And professionals with just a few classes in anthropology. Many of these areas would benefit from an in-house approach as well as an international collaboration. Some of these areas need graduate-level experts in anthropology. Others could use professionals who combine some training in anthropology with another specialty. There is room in the Arctic for many types of anthropologists.

I truly hope to see some movement in these areas in the coming years. The world will continue to shift in one direction or the other. Anthropologists need to choose to engage with the desperately needed agendas that often come with complicated partnerships. Having anthropologists in all of these sectors can mean significantly better outcomes in terms of respect for human diversity, sustainability, and a long-term perspective on humanity. There is a huge role for anthropology in Greenland. Only time will tell just how many choose to fill it.

The Greenland Trip: A Recap

March 15, 2022



If you missed the virtual field trip in November (2021), you can still find out what happened! Read on to get the recap of what we did... and what may be coming next.

In fall 2021, our team of researchers from Scotland, Greenland, and the United States (see the [Teams](#) post) joined forces to explore topics of heritage, science communication, and virtual learning in Greenland. Over the course of two weeks, we conducted a pilot collaboration meant to set the groundwork for future projects. For those who missed the trip and want to learn more, below you'll find a document containing all the blog posts in chronological order (much easier to read than a journey back through the blog itself).

DIGITAL HERITAGE WORKSHOPS & SPEAKING EVENTS

From November 3rd-7th 2021, as a part of Greenland Science Week, our team delivered 3D heritage workshops to a variety of audiences. The workshops were held in Sisimiut and Sarfannguit, Greenland. While close geographically, these two places represent very different communities inside the Arctic Circle. Sisimiut is the second largest city in Greenland, while Sarfannguit is a small settlement of roughly 90 people living inside the country's newest [UNESCO World Heritage Site](#). In these two communities, we worked with everyone from school groups to individual members of the public to explore how technology and heritage can come together for creative purposes.

Some of the workshops we hosted over the course of the trip were organized teaching events. They included planned lessons and hands-on instruction. Local students had the opportunity to experience archaeological recording methods and contribute to the post-excavation work of a real-world project. While learning the technology, students scanned artifacts recently uncovered in the Narsannguaq excavation in Sisimiut's city center. The students studied their own local history while exploring new technology for preserving and sharing evidence of Greenland's past. While learning from us, we also had a chance to learn from these students. Their perspectives on life in the Arctic, past and present, were invaluable for our own understanding of what innovative heritage projects can do in Greenland.



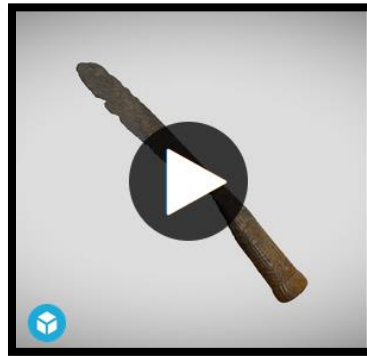
Sisimiut students learn about digital heritage

In addition to structured student workshops, our time in Greenland was also spent hosting more casual, drop-in sessions. A call on social media and in the local paper encouraged people to stop by with an object and learn about 3D digital technology. At these events, we scanned items of community-wide and personal value, including local archaeological artifacts, personal family heirlooms, as well as the contemporary art of local carvers.



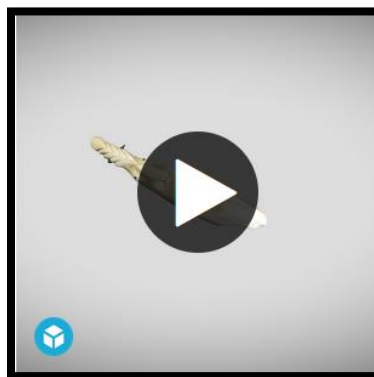
While the drop-in community workshops produced [beautiful digital reproductions](#), almost more important were our interactions with those in possession of the objects. Like the student events, the community workshops gave us the chance to talk to people about culture, heritage,

and life in Greenland. Through casual conversations, stories emerged. These stories perfectly portrayed how much meaning an object can hold, whether it's modern or historical. For example, the object below, a knife with a decorated handle, was brought in during one of these drop-in sessions by local translator Hanseeraq Jonathansen. While the heirloom was quite interesting by itself, time spent creating a 3D model of the knife prompted it's owner to share stories related to the object. While scanning it, Hanseeraq shared the story of it's discovery by his father on a hunting trip decades ago. He recalled his youthful fascination with the knife, as well as other childhood memories spent with his dad, exploring the natural landscapes of their home.



View this scan and others at: <https://sketchfab.com/DrAliceWatterson/collections/sisimiut-museum-greenland-science-week>

Our community workshops brought not only those with family heirlooms to share, but local artists as well. Master carver Barse Lyberth Svendsen stopped by one day with a sample of his work. He scanned a number of pieces to share online, including the pendant below, an object made of reindeer antler and typically worn on the body. During this session, Barse talked about his work using local raw materials. He shared with us his journey into the craft (the result of an accident that prompted a career change), as well as his time spent teaching workshops to other aspiring carvers. A few days later, we met one of his students in the settlement of Sarfannguit, witnessing the results of knowledge-sharing amongst the art community in the region.



View this scan and others at: <https://sketchfab.com/DrAliceWatterson/collections/sisimiut-museum-greenland-science-week>

In some cases, casual conversations led to a series of informal recorded interviews. The production of these simple videos gave us the chance to dive further into personal narratives. They also ended up as much-loved content for those following our research trip remotely.



While student and community workshops kept us busy, we also took advantage of more formal presentation opportunities. During our two weeks, we shared our ideas with community members, researchers, and academics through presentations at both the UNESCO World Heritage Festival in Sisimiut and the Public Science Talks in Nuuk, Greenland’s capital. In total, our team of three produced 10 workshops and presentations for a wide range of audiences. It was a very busy two weeks.



THE VIRTUAL FIELD TRIP

Hosting workshops, interviews, and speaking engagements were not the only activities taking up our time in Greenland. We also produced content for a virtual field trip. With a vast majority of study abroad programs still on hold in fall of 2021, we decided to take our already planned research trip and add a virtual learning experience for my American students. While the pandemic increased the need for virtual international learning programs, there remain [many reasons](#) to continue building these kinds of opportunities in coming years. I hope this part of our project inspires others to combine their field research with student learning outcomes.

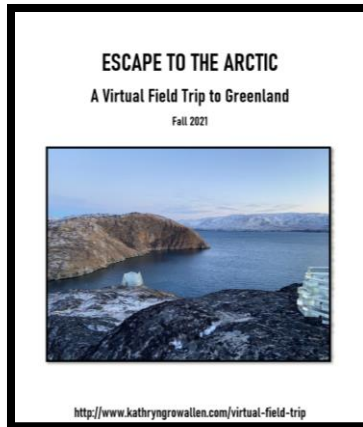
We decided to explore how remote learning could be used during our trip. Students enrolled in my Applied Anthropology course at SUNY Potsdam became active participants in our work. While the virtual field trip was initially designed for them, the decision to host it on my open access website rather than a closed learning management system allowed hundreds more to follow along. In addition to reading and watching the activities of travel and research, participants posted comments, asked questions, and took surveys. Those in my Anthropology class went on to write about the experience in course assignments. Their reflections, both publicly on the blog and in private assignments, were incredible to read (see document below for a sample).



Sample of student feedback document. View online at:

<http://www.kathryngrowallen.com/virtual-field-trip/the-greenland-trip-a-recap>

While much of the excitement of the trip happened by following along in near-real time sharing, those who missed the event can still access the content. Given how clunky it can be clicking through old blog posts, I created this document for easier reading. Read through in order if you are interested in the full story! Otherwise, the table of contents includes links to direct you to a particular piece online while the page numbers can help with a more targeted reading of the PDF.



This is the document you are currently reading!

THE FUTURE

As mentioned, this was a pilot project. With two thirds of the team new to Greenland, we had a [lot to learn](#). Like any great pilot however, we hope to do much more down the road. While I previously shared many ideas regarding [the future of anthropology in Greenland](#), we are busy narrowing down what is next. Unfortunately, nothing specific can be revealed right now, but I do hope to share some new projects soon. As a diverse team of anthropologists, our interests are strongly tied to the role of applied anthropology in the Arctic, digital and community-based heritage, and heritage tourism. As such, we are looking to use the groundwork from November to design impactful projects related to these themes. So stay tuned.

ACKNOWLEDGEMENTS

Gratitude is due to the individuals and organizations that made our November trip possible. Many many thanks to the United States Consulate in Nuuk, the Loughheed Center for Applied Learning at SUNY Potsdam and the University of Dundee for financial support. Thank you to other collaborating partners whose assistance with logistics, advertising, access, and community involvement were necessary as well. These partners include Sisimiut Katersugaasiviat // Sisimiut Museum (especially Dorte Katrine, Paninnguaq Boassen and Sofie Frydenrejn Johansen), Nunatta Katersugaasivia Allagaateqarfialu // Greenland National Museum & Archives, the Greenland Science Week Team, Activating Arctic Heritage, and the community of Sarfannguit. I would also like to thank the Virtual Field Trip's content manager, SUNY Potsdam graduating senior Charlie Sarkioglu for his dedication before, during and after travel. On a personal note, gratitude is also due to our families. Thank you for helping us run off into the Arctic sunset in search of opportunity to make an impact, both in Greenland and at home.