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THE STANLEY FOUNDATION | NUMBER 83 | Spring 2015

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INSIDE

Unnerving Nuclear Site Break-Ins 20 Years of Bringing the World Together A Pinnacle of Climate Ambition Teacher Development Through Travel

### **Action for Future Generations**

By Jennifer Smyser, Editor

For spring break this year, I took my seven-year-old daughter to Washington, DC. There are many great things you can do with kids in our nation's policymaking capital. The monuments, the Smithsonian museums, and the Capitol are just the start. But one place I chose for us to go to was the US Holocaust Memorial Museum.

Afterward a few people wondered why I would take my young daughter to a place that focuses on one of the darkest periods, if not the darkest period, of world history. My motivation was to help her understand why I take time away from her for travel and spend part of my days working on global issues like genocide. I wanted her to know that I have hope that what the Stanley Foundation does might keep any other little girl like her from having to suffer what those in the Holocaust did. In short, I wanted to make my work more tangible to her.

I often think about what the world might look like in 40 or so years when my daughter is middle-aged. Will millions more have died at the hands of those in power committing genocide and mass atrocity crimes? Will terrorists have acquired and used the most dangerous materials on Earth in an explosive device inflicting great harm on humans and the environment and possibly triggering an economic domino effect that sends millions into poverty? Will our climate have changed so drastically that we see the health, living conditions, and water, food, and energy supplies of millions affected for the worse?

If the answer to even one of these questions is yes, then governments and world leaders will have failed to take action to prevent some of the most terrible possibilities her future could hold. In our work at the foundation, we focus on the need for governments to prevent and reduce the profound threats to human survival and well-being. That focus makes it easy to believe that nations are the only actors that matter in solving the world's most critical issues. But I feel I will have also failed.

Being a mother gives me a passion for wanting to make this world a better place, which isn't just about where I work. I know it is a cliché to say so, but I want my daughter, and the approximately 2.5 billion other children on Earth today, to inherit a world they want to live in. And I feel a personal responsibility to that idea.

Taking my daughter to a museum is a small thing. So is sharing an image or a video on social media or writing an e-mail to a policymaker. Lots of organizations develop ways we can take individual action, with the hope that it becomes collective action. (See the back cover of this issue of *Courier* for one example.)

I hope that each of you also has a reason to feel personal responsibility for making our world a place where not just the next generation but all of those generations to come can live in a secure peace with freedom and justice. Maybe if each of us seized the small opportunities to educate, speak up, or take action, getting there would be a little easier.



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Cover photo: In July 2012, after cutting through four fences and setting off multiple alarms, Transform Now Ploughshares activists spraypainted "The Fruit of Justice Is Peace" and poured human blood on the Highly Enriched Uranium Materials Facility at the Y-12 National Security Complex near Oak Ridge, Tennessee. Break-ins like this, and the more serious one at the Pelindaba Nuclear Research Center in South Africa in 2007, are the beginning of nightmare scenarios that keep government officials and experts alike awake at night. (US Department of Energy Photo)



# The Assault on Pelindaba

By Douglas Birch and R. Jeffrey Smith



hortly after midnight on a cold Thursday morning, four armed men sliced through the chain-link fence surrounding Pelindaba, a storage site for nuclear explosives on the banks of the Crocodile River, west of Pretoria, the administrative capital of South Africa. The raiders slipped under an array of high-voltage wires in the fence, then shut off the electricity and some alarms.

They stormed the emergency response center at the 118-acre complex, held a gun to the head of one of the employees there and shot another.

Around the same time, a second group of intruders breached another section of the fence. But both teams wound up fleeing after they unexpectedly stumbled on a firefighter at the emergency center who fought them while a substitute watch officer summoned help.

Whatever the raiders were after that night in November 2007, they didn't get it. All they left with was one of their victim's cell phones, which they quickly discarded. Ever

since, the government of South Africa has dismissed the incident as a routine burglary by inept thieves who tried but failed to steal computers or civilian nuclear technology.

Many US officials in Washington had a different view—more closely matching the conclusions of an unpublicized, independent investigation ordered by the chief of the state corporation that manages Pelindaba. That probe produced an alarming report that has never been released—or even acknowledged—in South Africa, but was obtained by foreign intelligence agencies and described to the Center for Public Integrity by multiple people familiar with its contents.



Rodney Wilkinson planted four bombs at the Koeberg nuclear power plant north of Capetown, South Africa, in December 1982, in one of the most successful attacks on a nuclear installation ever recorded. Wilkinson, who was pardoned and given a government job after the fall of apartheid, is regarded as a hero by some South Africans. (Center for Public Integrity/Douglas Birch)

The author, who formerly worked for Kroll Inc., an international investigations firm, concluded that the raid was a carefully planned operation, that it relied on inside help, that those involved had special training, and that it probably targeted the nuclear explosives. Its leads and recommendations were shared with South African officials.

More than seven years later, no one has been charged with a crime, and no suspects have been identified.

South African opposition parties have demanded a more concerted inquiry, but the ruling African National Congress has brushed the issue aside. Then-Defense Minister Mosiuoa Lekota told lawmakers in 2008 that the break-in was "a clear criminal act" and a matter for police to pursue.

William H. Tobey, the deputy administrator of the US National Nuclear Security Administration at the time of the break-in, is among many US experts disturbed by the episode. While he remains uncertain of the raiders' objectives, he said he was convinced "there was insider participation." Rather than face the implications of the assault, he said, South African officials are in denial about it.

The 2007 breach, one of three reported at Pelindaba since the end of apartheid 20 years ago, fueled US concerns that South Africa's crime, corruption, and porous borders, all detailed in recent US counterterrorism reports, could make it a staging ground for an episode of nuclear terrorism.

Gary Samore, who was President Barack Obama's principal adviser on nuclear terrorism until 2013, said government experts during his tenure regarded Pelindaba as one of the "most vulnerable" stockpiles of weapons-grade uranium in the world. The 2007 assault on Pelindaba, Samore said, "was certainly one of the main reasons South Africa would be on that list, because that really freaked people out."

#### Nothing Is Impregnable

Pelindaba, a half-hour drive from Pretoria, stretches across a series of hilltops dotted with acacia trees and is circled by a 6.8-mile-long fence. In the basement of one building is a vault with more than six times the amount of explosive highly enriched uranium needed to create a blast larger than the US bomb that devastated Hiroshima.

But two experts familiar with the security arrangements say the building has no special guard force deployed full time at its perimeter, unlike similar repositories in the United States. Waldo Stumpf, a senior official in South Africa's nuclear programs under the apartheid and democratic governments until 2001, said that in his view "there's no way" unauthorized parties can get into the vault.

But Roger Johnston, a physicist who from 1992 until early this year led a team of US Energy Department scientists that studied global nuclear security measures, said anyone who says a vault couldn't be broken into "hasn't really thought through the security issues—because, if they had, they would be sweating bullets."

"It's just not a business where you should ever be confident," Johnston said.

#### **The Secret Report**

The former Kroll investigator was hired by Rob Adam, then the chief executive at the Nuclear Energy Corporation of South Africa, which runs Pelindaba. He declined to share a copy of the resulting report, but the 98-page document, completed in March 2009, paints a darker picture of the episode than the government has, according to multiple people familiar with its contents. It describes how at every step the attackers displayed a detailed knowledge of Pelindaba's security systems and the expertise needed to overcome them.

The first raider went straight to the electrical box, where he circumvented a magnetic antitampering mechanism,

disabled the alarms, cut the communications cable, and shut down power to a portion of the fence and to alarms on a gate just 250 feet away, opening a path for a vehicle to exit.

This was not simply a matter of pulling a switch, a person familiar with the independent investigation said, but required electrical skills and knowledge of the security systems. Those who participated, the report said, had special training.

Once inside, the gang walked three-quarters of a mile uphill toward the fire station next to the emergency center. Working swiftly, the assailants broke in, found a hidden latch securing a fire truck ladder, and used the ladder to climb to the center's second-floor landing. The raiders arrived on a night when they may have expected little resistance. The emergency center supervisor scheduled for duty that night used a wheelchair, but he had arranged for a colleague to take his place. She brought along her dog and her fiancé, Frans Antonie Gerber, an off-duty firefighter.

Security forces never confronted the raiders. But the dog's barking, which led Gerber to see the intruders and his fiancé to call for help, thwarted the intrusion.

Three of the intruders attacked Gerber, and one shot him in the chest when he resisted. Apparently frightened off because of the phone call, the first team fled. The second did not go far before it, too, left, leading the investigator to speculate that its members had communicated with the first team.

South African Police Service officials didn't respond to requests for comment. Ronnie Kasrils, South Africa's minister of intelligence services at the time of the raid, said in a brief e-mail that he had ordered a "thorough investigation" but that the results appeared to show it was a "routine burglary." Siyabonga Cwele, his successor in 2009, declined to be interviewed.

The private investigator tracked down some of the cellphone records of calls made in the Pelindaba area the night of the raid, which in combination with interviews and polygraph tests led him to two South Africans he ultimately suspected of having participated, as well as several others who may have been accomplices. But the suspects were never arrested or even questioned by police, according to two South Africans with knowledge of the case.

Whatever the raiders' intent, a former US intelligence official said, they "had the run of the place. The more we learned, the more horrifying it was. . . . They could have gotten the stuff" if they had been more determined to do so.

Matthew Bunn, a Clinton White House nuclear security official who also advised the Bush administration on the issue, called the view that the raiders were common criminals "utterly nonsensical."



"Nobody breaks through a 10,000-volt security fence to steal someone's cell phone," Bunn said. The assumption "to be disproved," he added, was that they were after the weapons uranium.

Douglas Birch is a senior writer at the Center for Public Integrity. R. Jeffrey Smith is managing editor for national security at the center. This article originally appeared in The Washington Post on March 14, 2015. Read related stories at www.publicintegrity.org/ national-security/nuclear-waste.

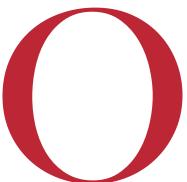


# With Open Minds and Open Arms

Common Experience and Friendship

Unite Students

By Ari Bakke



ver 140 high school students sit awkwardly in a large conference hall on a Friday evening in February. They represent over 50 countries, cultures, and lifestyles. Most of them, as foreign exchange students studying in Iowa high schools, have been actively sharing their culture with others while learning simultaneously.

At this conference, the students start as strangers from around the world. After "speed-friending" and a few hours of dancing, the students are behaving as though they have been friends for ages.

The Iowa Student Global Leadership Conference (ISGLC) brings these students together for a day and a half to meet other foreign exchange students, build relationships, increase awareness, and discuss global issues. Organized annually by the Stanley Foundation, ISGLC has brought close to 3,000 high school students from around the world together for 20 years.

This year's keynote speaker was Dean Jacobs, a world traveler and photographer. A returning speaker for ISGLC, Jacobs brought passion, humor, and advice for the audience. Jacobs told students he was "an ordinary guy from Nebraska who had a dream." Using personal photographs and stories, Jacobs took students through his two-year trip around the world. He stressed that he did not start out with a lot of money and that he lived off \$10 to \$15 a day for those two years. He wanted the students to know that when you have a dream, you have to fight to make it happen, but it is possible to make that dream come true. You just have to get out there and go for it.

For the Iowa students who have never traveled from the United States, his saying "dreams are the birthright of

everyone" convinced many that they, too, could travel the world one day. For the students who had traveled thousands of miles, he touched on how traveling is the best way to learn about yourself and others because you try something new and put yourself out there. Every foreign exchange student knows this to be true. After the keynote speech, students broke up into small groups to get to know one another. When asked what they had learned from traveling and from Jacobs's speech, they all agreed that, as a traveler and leader, you have to try new things.

During the conference, students and volunteers viewed a recent documentary film titled "Gringo Trails" that examines the intersection of tourism and culture. Students then broke up into small groups and discussed global implications of tourism and ways to reduce negative consequences. Some groups worked together to come up with a list of laws they felt should govern global tourism. Other groups considered ways to reduce the negative impacts of tourism on the environment and cultures. As foreign exchange students, they realize the value of traveling to immerse oneself in a different culture rather than traveling for luxury and tourism. The activity also helped students see how they fit into the roles of leaders, tourists, and travelers. They left with a better understanding of how they can make a difference and become responsible global citizens while they are in Iowa and when they return home.

When the students were asked about the best part of the conference, one student from Ukraine said:

"The best part is that when you are at school you sometimes feel very alone. No one else really knows what we go through, being away from our friends and family and home. But you come here, and everyone knows what we are going through. We all have similar experiences. I also found another girl who speaks Ukrainian and it felt so good to be able to speak my language again. It's also cool when you can step into a big group of people and some of them are speaking different languages, and then we all start speaking English and we are united by this one language."

However, one current event in particular solidified the importance of ISGLC for these students. As they all were discovering how similar teenagers are around the world, two students stood out. With open minds and open arms, the students from Russia and Ukraine explained that because of ISGLC, the conflict between their countries was not going to stop them from becoming good friends.

At the end of the conference, students are invited to go up on stage and share something about what they learned or gained from the conference. One boy from Pakistan began by thanking the organizers for allowing him the opportunity



to attend the conference. Then he said, "ISGLC has been the best days of my life as an exchange student."

Watching all these high school students hug and take pictures as they say goodbye to their new friends they met the day before, it is obvious that the relationships built at ISGLC will span the globe and last for years.

Ari Bakke, a recent graduate of Eastern Illinois University with a major in interpersonal communications, was one of many volunteers who make the Iowa Student Global Leadership Conference happen.



## A New Architecture for Climate Action at Paris

By S. Jacob Scherr

n the last year, there has been a steady stream of disturbing findings about the worsening consequences of climate change. Yet the next UN climate deal to be struck in Paris at the end of this year could be different from past, disappointing UN climate megaconferences. Last September, French President Francoise Hollande ended his speech to the UN Climate Summit on a note of urgency and hope:

"I wanted to sum up my remarks: it's a race against time not just against climate that could devastate the planet. No, against the time that is ticking by. ... Let's also be capable of delighting the world again, of giving the world's young people the hope that they'll live better than us. Paris is a symbolic city: a symbol of freedoms, a symbol of human rights. In December 2015, I'd like Paris also to be the symbol of change for the climate."

The Eiffel Tower is the city's symbol and an element of the official logo for the 21st Conference of Parties of the United Nations Framework Convention on Climate Change (UNFCCC). Gustave Eiffel said the tower he constructed for the 1889 Universal Exposition evoked "not only the art of the modern engineer, but also the century of Industry and Science in which we are living, and for which the way was prepared by the great scientific movement of the eighteenth century and by the Revolution of 1789, to which this monument will be built as an expression of France's gratitude." So will Paris mark the start of the revolution we need to deal with the climate crisis, to stimulate the rapid transformation to a net-zero carbon world?

The tower could symbolize the start of another new century where we again use science and technology to transform our world. Eiffel succeeded in spite of doubts about the feasibility of building a 1,000-foot tower of iron almost double the height of any other structure. Today we need to overcome the naysayers and spark races to speed the needed transformations in energy, transportation, cities, forests, and other sectors.

#### The Pinnacle of Ambition

With its pinnacle, three platforms, and four pillars, the Eiffel Tower mirrors perfectly the new architecture we need to create by the time of the Paris conference to deal with climate change in the next critical five to ten years.







At present, national governments have agreed to a goal of limiting the rise in the temperature of the planet to less than 2 degrees Celsius. There is now a push to persuade them to go further in Paris, to adopt a more understandable goal that sends a clear signal—not unlike those lasers beamed from the top of the Eiffel Tower—as to what the world must do to avoid climatic catastrophe. In Paris, nations should agree to decarbonize the global economy as quickly as possible and achieve a net-zero carbon world by mid-century.

#### **Negotiations at the Top**

Much of the attention will be on the formal UNFCCC negotiations that will take place at the Le Bourget conference facilities about seven miles north of the Eiffel Tower. Nations will negotiate a new legal framework for actions starting in 2020. Governments are now being asked to put forward their long-term targets and plans. The final deal will undoubtedly be a disappointment to many, but recall that no agreement at this level—particularly one resulting from extraordinarily complicated negotiations among more than 190 countries—can "solve" the climate crisis. We need to focus much more attention on the lower levels of the tower, where globally negotiated goals are turned into action.

#### Closing the Gap from the Middle

Governments, business, and civil society players are working together on climate change through scores of global partnerships, initiatives, networks, and coalitions. A few prominent examples are Sustainable Energy for All, the Mayor's Compact, and the Tropical Forest Alliance 2020. Some of these mean that gigatons of emissions are not getting into the atmosphere, significantly closing the gap to stop climate change within 2 degrees.

In Paris, we need to recognize these multistakeholder arrangements as critical means of implementation. A growing network of scholars, officials, and advocates will put forward a proposal at Paris for the creation of a new platform to encourage, support, assess, and provide accountability for these important arrangements.

#### Groundswell

Commitments from leaders at all levels of government, business, and civil society—of which there are now thousands—to take steps represent a groundswell of climate action. The compiling and organizing of such commitments is still at an early stage. At the 2014 climate negotiations in Lima, Peru, the UNFCCC launched the Non-state Actor Zone for Climate Action with more than 900 climate actions by nonstate actors in cooperation with national governments. We hope by Paris to see a much strengthened platform for these promises.

#### **Pillars of Sustainable Development**

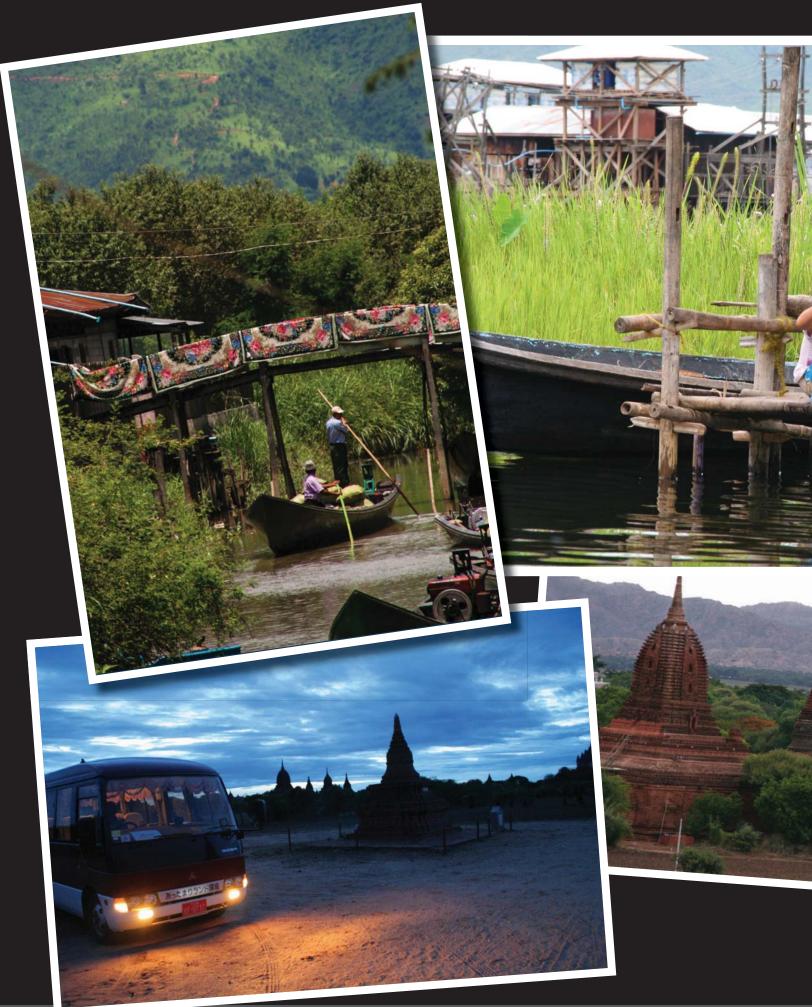
Finally, there are the four pillars upon which the Eiffel Tower rests. There are four elements of the broader challenge of sustainable development: economy, equity, environment, and governance. The pillars are reminders that real change can take place only with the understanding and engagement of the public and with actions that the people embrace in their own lives and communities.

Like the Eiffel Tower, none of the individual components stand alone. They are dependent on one another and interlinked. Real hope of dealing with climate change depends on a top-down vision and legal framework, but also bottom-up engagement of citizens, leaders at every level, and structures to drive and support commitments to action. Next December in Paris, we don't need to rebuild the Eiffel Tower, but to reimagine it as the architecture for the transformative change we seek, and then make it a reality.

S. Jacob Scherr is a senior adviser with the International Program for the Natural Resources Defense Council.



U Wikipedia Photos







Penny Morter, a 2014 Catherine Miller Explorer Award recipient, traveled to Myanmar. Seeing daily life in a village on Inle Lake, where wooden homes stand above the water on stilts, and visiting the ancient city of Bagan were part of her professional development experience.

# And the Winner Is...

Enhancing Teachers' Professional Development Through a Travel Award

> ach year the Stanley Foundation provides a local teacher or two with an opportunity of a lifetime. The Catherine Miller Explorer Awards—

given in honor of the life and work of a devoted Muscatine, Iowa, school teacher who believed that an understanding of the world should be a part of every student's education—take awardees on an educational study tour to the destination of his or her choice. Recognizing international travel as an important aspect of professional development for teachers, the foundation created the awards ten years ago. The change in perspective brought about by immersion in a culture different from one's own allows award winners to provide their students with a global perspective.

As a 2014 Catherine Miller Explorer Award winner, Penny Morter, a fifth-grade reading/writing and science teacher at Madison School in Muscatine, traveled to Myanmar. In this interview, she discusses her experience and how she and her students have benefitted from it.

The Stanley Foundation (TSF): Which country did you visit and why?

**Penny Morter:** I chose to travel to Myanmar. I wanted to experience a place less traveled (one of my favorite poems by Robert Frost) and witness how the human spirit is resilient and beautiful even after a people have had to overcome war and oppression.

**TSF:** How do you think this experience has enhanced your knowledge and understanding of the world and global issues?

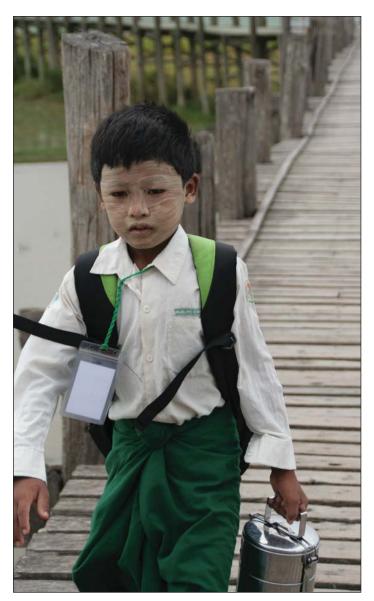
**Morter:** Not only did this experience have an effect on my understanding of the world, but also I truly feel I was able to make an impact on others. The experience allowed me to hear from others how they saw Americans. And through this opportunity and my poise, I was able to show how stereotyping a group of people doesn't make that stereotype true.

On my journey, I was able to witness many aspects of humankind: from kindness and generosity to scheming to living daily for family to trying to survive, which is not unlike what goes on every day in this country. So in essence, the old adage is true, "We are more alike than different."

I also witnessed people being exuberant about what they had, even when it was so little compared to what we have or expect we should have. There is just so much we can learn from each other.

**TSF:** Why is it important for teachers to see themselves as global citizens?

**Morter:** No matter what one teaches, experiencing the world on a greater scale gives us a clearer perspective in all areas of education. Experiencing other cultures allows



Morter's photo of a young boy crossing the U Bein Bridge on his way to school gives her students in Muscatine a glimpse into the life of students in Myanmar.

us to share and open up new cultural and worldly aspects for our students to experience. It also makes one aware that all our students, from this nation or from others, bring with them their own perspectives, which gives rise to learning from each of them, as well as giving us the opportunity to teach respect and the valuing of human life.

**TSF:** What excited you most about being an Explorer Award recipient?

**Morter:** Having the opportunity to explore the world with people from all over the world. I had looked forward every year to hearing about the places Explorer Awards winners had gone, learning from them and their experiences. When I showed my presentation to my students, I witnessed their wonder and excitement as they saw another culture and how they wanted to learn more about the world and travel.

## **Destination: Peru**

#### By Leslie Bennett

Instructional coach and elementary school teacher Leslie Bennett will have her opportunity of a lifetime this summer as a 2015 Catherine Miller Explorer Award recipient. We asked her about where she's planning to go and what she anticipates learning.

Because of my experiences with the indigenous peoples of North America, I am eager to further my understanding of those of another continent. Namely, I would like to study indigenous peoples of the Amazon rainforest and the ancient pre-Hispanic Incas of Peru. I hope to bring back firsthand experiences of these cultures to students and teachers alike.

Although I am looking forward to all parts of my trip, I am most excited to visit El Infierno, the village of the Ese Ejje, located on the banks of the river Tambopata in Peru's Madre de Dios region. This community is one of the few that are open to visits from tourists and work collaboratively with socially

responsible ecotourism companies. I am very excited to see how this collaboration works. It is an amazing opportunity to learn directly from the people while staying at their outdoor jungle lodge.

Global perspective is critical today in education. In a world that is inundated with social media and global corporations, modern education needs to go beyond the textbook. Students need a deeper understanding of their own place in the world. Cultural awareness and international collaboration during childhood result in more well-rounded individuals. This change starts with us, the educators. As teachers, we need to encourage our students to see things from different perspectives and help them make informed decisions, acquiring essential skills that will be useful later in life.



Stanley Foundation Program Officer Jill Goldesberry (R) awards instructional coach and elementary school teacher Leslie Bennett (L) a Catherine Miller Explorer Award in January 2015. (The Stanley Foundation/Amy Bakke)

Although I have access to other cultures through literature and media, it's not the same as actually traveling to a different country. I believe that travel broadens the mind and makes us more well-rounded, global citizens. I hope to understand firsthand what it means to be a socially responsible tourist and experience true empathy for cultures other than my own.

The experience of travel is meant to be shared. The most valuable lesson I can take from my experience is cultural empathy, or the ability to accept another cultural point of view. I hope that by sharing my experience abroad I can transfer this idea to the students and teachers of Muscatine, and they can understand and practice empathy for and value the importance of other cultures.



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