Global learning continues to make significant inroads in the education of Northern Arizona University students. With the launching of the Global Learning Initiative, global learning in the disciplines is coming into focus in unprecedented ways. Some one-third of all departments on campus have signed on to the initiative, and most have completed and adopted plans to thoughtfully infuse global learning in the major.

The first Global Learning Symposium at NAU provided an opportunity to showcase research done by NAU students that highlights the three major themes of global learning: diversity, sustainability, and global engagement. While some research projects focused on only one of the themes, others effectively addressed all three, and underscored the central role of these themes in understanding and negotiating the global landscape of our lives. The Global Learning Symposium was part of NAU’s International Week, which included both scholarly events and cultural activities. Undergraduate and graduate students took part in this intellectually stimulating and engaging event, including the more than 20 students involved in presenting papers on topics ranging from the effects of tourism in Macau SAR to the distribution and abundance of invasive plant species in Costa Rica, from developing an affordable and functional clean-burning stove for use in developing countries to a curriculum for sixth graders on global natural disasters.

This symposium demonstrates the significance of global learning, not only in the courses taught in the major but also in regard to the centrality of global learning to the questions that still need to be answered as we push the boundaries of knowledge. In fact, the interconnectedness and interdependence of the human experience increasingly presents us with questions that have global ramifications that require a global approach in the search for answers. By facilitating these research experiences, NAU faculty members are clearly asserting an increasing awareness of the value of student-led research activity that is focused on global issues. This is important, because it is only the faculty who can be in the vanguard of advancing global learning in the curriculum. And it is only through global learning, deliberately infused in the curriculum, that students can become globally competent and ultimately global citizens living successful and productive lives in the 21st century.
It was a fairly typical day and Mohammed Bouazizi, minding his business, was selling his fruit and vegetables from his cart in Sidi Bouzid. He knew that this was illegal because he did not have a license to sell, but this was his sole source of income, and apart from needing to support himself and his family, he probably needed to feel engaged in some meaningful activity. The approaching policemen did not make it any less of a typical day. Sometimes they harassed vendors and other times they ignored them. But this time, they stopped, asked for his license, and when he could not produce it, they confiscated his produce and, according to reports, slapped his face. It was at this point, that December 17 was no longer a typical day, not for Mohammed, not for Sidi Bouzid, not for Tunisia, not for the Middle East, and certainly not for the world.

This event proved to be one humiliation too many, one indignity too egregious, one violation too gratuitous. Mohammed doused himself in gasoline, and in front of the governor’s office, he set himself on fire. He was determined to end his personal pain, but he was even more determined to make a political statement that enough was enough. Little did he know that his act of frustration, desperation, and ultimately self-sacrifice would be the spark that would set fire to the political and social landscape across the Arab-speaking world. Like the pressure that builds deep below the earth’s surface for decades and then suddenly seeks relief in an explosive volcano or a violent earthquake, the voices of millions of people in the Middle East suddenly erupted, almost in unison, calling for an end to the decades of humiliation and indignities visited upon them by autocratic, corrupt, and repressive regimes.

As if to describe a template for these regimes, the editors of the February 21, 2011, issue of The Nation wrote that “for decades, the structure of an oppressive state rises above society, murderous, impermeable, implacable. The torture chambers are operating twenty-four hours a day. The nation’s wealth flows to secret accounts abroad. The rich and privileged sit contented in their gated communities. . . . Often the sovereign bows to a foreign paymaster. A fog of propaganda fills the air like poison gas. . . . Unaccountable bureaucracy tangles up the country in a thousand absurd regulations.”

Beyond an end to the humiliation, the Arab world (and all other oppressed peoples for that matter) is seeking leadership that will afford transparency, honesty, accountability, responsiveness, and leaders who will earn their right to lead from the people. We call this yearning in America freedom, and this impulse has always been universal. If we were to think that these revolutions that are currently being witnessed are new or unique, we would be fundamentally wrong. Commentators have made a big deal about the role of social networks in mobilizing the masses to demonstrations, but we have had revolutions before without such tools. In terms of what people were seeking, we find much in common with the French Revolution, the Russian Revolution, the struggles for self-determination throughout the colonized world in the 1940s and ’50s, and the “color” revolutions of the late 20th and early 21st century. As if not to be left out of the action, recent efforts to pass anti-union legislation in Wisconsin unleashed a powerful pushback among many Wisconsinites, reminiscent of the labor struggles in the 19th and 20th centuries and an aggressive middle-class political movement across the United States.
Learning and teaching how to "think globally" is no easy task, for each of us is profoundly influenced by our particular history—indelibly shaped by the places, peoples, promises, and problems, of the polities with which we are most familiar. Thus, the challenge of "international education" immediately presents us with a magnified image of challenges that are at the heart of all education: how to cultivate the virtues of patience, imagination, mobility of intellect, attentiveness to complexity, critical scrutiny of power, openness to criticism, and capacities for courageous collaboration which, when combined, enable us to creatively engage visions of the world that stand in critical tension with those we take for granted. The call of international education is the call to become involved in spheres of concern, relationships, and public goods that exceed the self, go beyond the limits of any one province, and sweep us into a journey that is difficult yet exhilarating, intensely specific yet endlessly opening onto new horizons.

For all these reasons, the great political thinker Hannah Arendt argued that good judgment requires what she called “world traveling.” World traveling, like all the arts, must first be developed through attentive daily practice in local settings, and thus Arendt used the metaphor of people situated around a table to describe this pedagogical virtue: World traveling requires that we strive to situate ourselves in the place of others around the table to understand how things look and feel from “over there.” World traveling in this sense is at the heart of the pedagogical practice to which we are called as we gather around a seminar table. Cultivating these arts in this small setting enables us to develop in ways that enhance our ability to exercise good judgment elsewhere.

NAU’s First Year Seminar Program offers students myriad opportunities of this sort. Yet in the past two years, NAU has begun to pioneer signature opportunities for civic engagement that are increasingly drawing national recognition and acclaim. Through a rapidly growing program called Community Re-engagement for Arizona Families, Transitions, and Sustainability (CRAFTS), NAU students are offered a vast range of opportunities to learn in the context of action research teams. Students involved in research teams learn the skills of collaborative leadership, as they engage with community partners in generating constructive responses to real-world issues. This experience enables incoming students to immediately begin connecting their academic learning with meaningful contexts that instill a sense of the relevance and excitement of higher education and the public work of citizenship. Far better than the model of education conceived of as a process in which students are viewed as relatively passive consumers who go about filling their containers with rote knowledge, CRAFTS provides an educational context in which each student is an active learner engaged in problem-based education in which they work in dialogue with the broader community to become agents of thoughtful transformative responses to 21st-century challenges.

The CRAFTS model provides a
“This course had taught me to learn about other cultures. Just being understanding and accepting of the other cultures is not enough. We are not helping if we do not try to help others that are not accepted because of their race or culture. The first and most important thing to do is to talk with the people and hear about how they feel and what they think should or can be done.” (First year Seminar student, personal correspondence).

This opening quote articulates well what I hope students walk away from my first year seminar course pondering: the most important tool we can offer oppressed peoples is advocacy to promote social change that interrupts a status quo that continues to marginalize particular populations. Spring 2011 I agreed to teach a first year seminar course, “Indigenous and Immigrant Narratives: Using Oral History to Promote Social Action” dedicated to interviewing administrators, teachers, parents and students in the Flagstaff Unified School District about Latino and American Indigenous educational issues. A first step in the course is becoming aware of local, national and international issues regarding Immigrant and Indigenous populations. The next step from awareness, as the opening quote states, would be to collaboratively envision change with the participant(s). At its core, this course aims to use oral histories to gather local stories that will foster global responsibility.

For the course, I invite students to choose one of three foci/educational settings: (1) Parent Organizing at Killip Elementary School, (2) Engaging Native American high school students at Kinlani Bordertown Dormitory or (3) Student Involvement Day at the Murdoch Center.

Engaging at the field sites is critical to all of the projects. “Doing curriculum,” by getting out of the classroom and practically applying what we’re discussing theoretically, I believe, is an effective way to teach and learn. I also believe researchers need to have investment in their projects. For these reasons, the students choose topics of interest to research at their individual sites. Additionally, doing research “in our own backyards” is a foundation of this class; I want students to see how much they can learn from people in our own community.

One activity completed at every site is a “personal cultural map” in which the research participants (all students) were invited to map out their school day, where they wake up to where they go to sleep. For each of the places they visit, they are invited to show how their culture is represented (eg: home, family/friends’ houses, church, stores, bus, car, street, classrooms, gym, or playground). The students color the spaces on the map according the following key: green if their culture is always represented, yellow if their culture
Teaching about U.S. and Global Health Care Issues  
By Prof. Anne Medill

I have been teaching a First Year Seminar (FYS) class on U.S. and Global Health Care Issues since the inception of the FYS program. The course aims to increase awareness of significant healthcare issues across the lifespan as they apply to selected populations in the U.S. and other student-selected countries and to examine how culturally diverse health care experiences lead to different policy and program approaches for addressing health care needs. The liberal studies skills that are emphasized are critical thinking and effective oral communication. In the classroom I am mindful of several goals of the Center for International Education that include seeking to prepare students for global citizenship and to transform the NAU campus culture into one that celebrates global learning.

The final student project for the course is a group presentation on a self selected health care issue and the comparative response to that issue by the U.S. and another country. Students decide what other country they will focus on for their comparison country and then research the programs, providers and policies for that health care issue in each country. In the fall of 2010 student groups looked at euthanasia in the U.S and Switzerland, obesity in the U.S. and Japan, AIDS in the U.S. and Uganda, Alcoholism in the U.S. and Ireland, Eating disorders in the U.S. and U.K..

At the beginning of the course students are generally unaware of significant health care issues in the U.S. and globally. However at the end of the course students demonstrate an increased understanding of the importance of examining health care issues from a cross cultural and global perspective to better inform policy makers and health care providers.

Students are required to write a self reflection paper at the end of the semester that asks them to reflect on how what they learned in the course will impact them and their interactions/transactions with family, peers, the NAU community and the U.S. and global environments. Several examples of their responses were:

“Learning so much about malaria caused me to care about other people and showed me that I have a good life. It has changed my spending habits, I now buy generic brands and tally the money I save at the end of each month and I plan to donate that money to NETS FOR LIFE”.

“FS 141 has truly opened my eyes to seeing that not everyone has health insurance and how it is a constant battle for some families. Before this class I had the perception that obtaining health insurance was expected and that there was no big deal in getting it.”

“It opened my eyes to a world I never knew existed and has actually influenced me to change my major to public health so I can help people with preventable and infectious diseases that do not have the resources to help themselves.”

At the end of the course when I read the student self reflections I get excited about their increased engagement in U.S. and global health care issues. I also believe that NAU students can continue to engage in developing a global framework beyond their experiences in this course by participating in many of the other NAU courses that have a global emphasis.

Anne Medill is an Associate Professor in the Department of Sociology and Social Work.
The Impact of Global Warming on Tourism Economies  

By Prof. Ding Du and Pin Ng

Global warming has garnered a great deal of attention and interest over the past few years, thanks in no small way to the work of Al Gore. There is now near unanimity that global warming will bring significant changes to human civilization in the near future. In fact, global warming is expected to have major negative impacts on national economies. Horowitz (2009), for instance, shows that an increase in temperature of 1 degree Celsius due to global warming can result in as much as a 3.8% decrease in the world GDP. Ng and Zhao (2011) find that the adverse impact on the G-7 nations of the same increase in temperature can result in as much as a 3% decrease in their combined GDP. Researchers therefore recommend a policy of aggressive climate mitigation.

With respect to tourism, however, the negative impacts of global warming may not be as severe as they are on other industries. Cerón and Dubois (2000) show that mountainous parts of France, Italy, and Spain could become more popular because of their relative coolness. Hamilton et al. (2005) indicate that global warming may have only small impact on global tourism. Taylor (2009) finds that there is likely to be increased domestic tourism as a result of climate change, which gives rise to the question of the possible impact of global warming on the economies that are heavily dependent on tourism. This question is significant because if the impacts of global warming on tourism economies are small, aggressive climate mitigation policy recommended for most economies may not be optimal for those rooted primarily in tourism from a cost-benefit perspective.

To answer this question, we focus on the relationship between temperature (a proxy for global warming) and income (GDP per capita) for three major tourism economies: Greece, Spain, and Turkey. The dataset we use is the G-Econ data developed by Nordhaus (2006). The G-Econ dataset contains information at a 1-degree longitude by 1-degree latitude resolution at a global scale and, therefore, allows a cell-level analysis of the relationship between temperature and income. Several advantages derive from using cell-level data compared to using national-level data for studying the impact of global warming: (1) cell data make temperature measurement more meaningful, (2) using cell data increases useful sample size from around 100 countries to about 15,000 terrestrial cells, and (3) because the data contain multiple observations per country, it is possible to control for factors that are unique to individual countries, which is important for our study.

To estimate empirically the impact of temperature on income, we use a Cobb-Douglas model based on Ng and Zhao (2011), which takes into account both historical and contemporaneous effects of temperature on income that researchers emphasize (see Acemoglu et al., 2002; and Sachs, 2003), as well as the effects of other relevant economic variables, such as population growth and capital accumulation. For comparison, we also estimate the impacts of temperature on income for all countries in our sample, for the developed G-7 countries, and for a group of developing countries that includes Russia, China, South Africa, and Brazil, among others.

Based on our model, we estimate that the average effect of a 1-degree Celsius increase in temperature on the tourism countries (holding other relevant variables constant) is approximately a 0.89% decrease in their combined GDP. In comparison, the estimated average impact of a 1-degree Celsius increase in temperature is about a 1.35% decrease in the global GDP for all countries in our sample, a 1.7% decrease in combined GDP for the G-7 countries, and roughly a 1.4% decrease in the combined GDP for the developing countries.

Thus, global warming’s impact on tourism economies is much smaller than its impact on other types of economies. Since the three tourism economies that we studied are all OECD countries, the G-7 countries may represent a better comparison. As we have found, the average impact of the temperature increase on tourism economies is only about 50% as much as its impact on developed G-7 countries. While global warming continues to be quite real for these countries, our findings suggest the need for a less aggressive climate mitigation policy for tourism economies.

Ding Du is an Assistant Professor and Pin Ng is an Associate Professor in the W. A. Franke College of Business

**Please forward requests for citations to the authors**
By Crystal Uchino

A somber dirge continues to play in the hearts of all of us here in the southern prefecture of Nagasaki where I live and all across Japan in the wake of this earth-shaking, tsunami and subsequent nuclear crisis. This tri-fecta of disasters is truly beyond humbling, it is a living, grotesque and sobering nightmare that will likely haunt the world for much time to come. As the after-effects of both the earthquake and the tsunami continue to be revealed, so grows the depths of the despair and sadness over the magnitude of the situation. Watching events unfold over the news daily in real time delivers new quakes to test the resilience and endurance of our hearts, faith, the depths of our empathy, grief and determination to act.

The death toll has continued to climb daily, as does the number of those now homeless and seeking shelter from a nuclear fallout. Additionally, the conditions within the shelters are appearing increasingly grim as a result of inadequate infrastructure to provide sufficient food, warmth and sanitation. There continue to be new explosions at the nuclear power plant in Fukushima, and large after-shock tremors continue to rock this already shaken nation. All around me, the apocalyptic images we see on the news conjure memories of the damage done by the atomic bombs dropped here over sixty years ago, as the possibility for a new generation of Hibaku-sha (“nuclear explosion-affected peoples”) emerges as a frightening reality.

Today, it seems that Japan is once again being poised as a great and humble teacher. The festering wound of this crisis serves to underscore, once again, just how much the splitting of the atom remains one of the single most volatile global threats at a personal, community, state, and environmental level. Japan, despite past injuries of Hiroshima and Nagasaki, and seemingly anti-nuclear principles: non-production, non-possession, and non-introduction of nuclear weapons; has become one of the leaders in nuclear development and production in the world. According to Green Action Japan, before the quake, there were 53 nuclear power plants in operation in Japan. Fifty-three nuclear power plants in a small island country notoriously

(Continued on page 18)
Beginning in 2007, the College of Education at NAU became the home of the eJournal in Education Policy (JEP). The journal invites papers from all over the world that seriously consider the broad issues of rights to an education in the public domain and the debates that emerge around differing opinions regarding educational policy in a democratic society. The journal is a blind peer-reviewed journal published twice each year in fall and spring and is an open access journal free to all users.

The JEP originally started in 2000 as an opportunity for members of Dr. Rosemary Papa's doctoral ethics and policies classes for practicing school administrators (K-16) at California State University, Sacramento. It is considered to be one of the oldest open access free electronic journals in the U.S. Over the years, faculty from CSU, Sacramento, throughout the state of California and across the United States began utilizing the journal as an outlet for papers addressing critical issues in education. As well, colleagues in a variety of fields outside of education from across the country began to submit manuscripts to this journal. In a short time, international colleagues also became involved in submissions to JEP.

In 2007, Dr. Papa accepted the position of the Del and Jewell Lewis Endowed Chair for Learning Centered Leadership in the College of Education at NAU. At that time, the JEP became a recognized journal of NAU and is featured on the College of Education front page.

In December of 2010, JEP received official notification from the Library of Congress that an ISSN had been assigned (ISSN 2158-9232). An ISSN designation is akin to a social security number of the serial world. The ISSN is a recognition symbol of libraries throughout the world. It facilitates database searches and is a key component of OpenURL systems.

As well, the JEP has been added to the worldwide Directory of Open Access Journals which will promote its increased usage and impact. It is also library bundled through EBSCO since the journal’s inception. The American Educational Research Association has recognized the journal and includes presentation of the journal in its table talk sessions at the annual spring meeting.

An Attorney’s Corner also appears on the eJEP website written by members affiliated with the Arizona Trust. This commentary reflects legal perspectives on current Arizona policy issues facing both K-12 and higher education.

Articles are accepted that are up to 2000 words in length. Guidelines for submission to the journal appear on the website (www4.nau.edu/cee/jep/guidelines.aspx)

Titles of some accepted publications include:

- Child Labour and the Progress Towards the Attainment of the Education For All (EFA) Goals in Nigeria
- Protecting Academic Programs in Times of Economic Crisis: Evidence from California’s Public School Districts
- The Function of Education in Shaping Chinese National Identity in Colonial Hong Kong
- Separation of Church and State: Fact or Fiction?
- Ethical Dilemmas in African American Faculty Representation
- Undocumented College Student Enrollment: A Policy Discussion

If you, your colleagues and/or your graduate students would like to consider submitting a paper to JEP, please go the website www4.nau.edu/cee/jep/ for guidelines.

Rosemary Papa is the Del and Jewell Lewis Endowed Chair for Learning Centered Leadership in NAU’s College of Education.
Delegates from more than 40 nations convened in Delhi, India, in mid-January for the WE-ASC World Education Culture Congress, organized by Lady Shruti Rana (philanthropist, teacher, musician, and wife of Lord Rana, U.K. House of Lords) and sponsored by the Shruti Foundation, the British Government, Ernst & Young, and UNESCO.

In our paper “Teach For America/Teach For India: Globalized Education for the ‘Public Good?’” co-authored by NAU doctoral candidate and India native Navin Singh, the notion of what constitutes education for the “public good” was examined through contexts of venture-philanthropic, corporate, and market-driven models that tend to view teaching poor children as a finite form of “service” en route to a career in business or leadership. Both the TFA/TFI programs offer alternative pathways to the classroom for recent college graduates, who are given five weeks of intensive training that derives little from education schools and borrows more from business, with in-house training, induction, and development of entrepreneurial skill sets. Reena (a Teach For India Fellow applicant from Delhi) shared her thoughts:

“I applied to Teach For India and considered teaching with TFI as something to do while waiting for the economic situation to improve here. There was no mention of teaching skills, but the application required an accounting of one’s business work history and experiences.”

Our paper compared TFA and TFI and posited critical questions from which to examine alternative pathways to the classroom. Similarly, the key findings in my book Learning on Other People’s Kids: Becoming a Teach For America Teacher (Information Age, 2010), a finalist for two national academic book awards, questions the assertions that “content trumps pedagogy, intelligence makes up for lack of teacher training, one can become an ‘instant teacher,’” and more importantly, that teacher qualification requirements can be relaxed in educating poor children, and assessment and accountability warrant ‘innovative’ models.”

In 2010, India passed the Right to Education (RtE) legislation. This law targets the needs of more than 6 million Indian children (from age 6 to 14) who are not even enrolled in school and the 50 percent who drop out before completing a primary education (NDTV, 2010). The RtE attempts to address issues of “quality” by “laying down stipulations for teacher qualification, teacher-training norms, and desirable teacher-pupil ratios in the classroom. The RtE is trying to create a professional cadre of teachers through such reforms” (Thomas, 2010, p. 2.).

During the question-and-answer portion of the post-paper presentation, Israeli professor Dr. Baruch Of- fir, whose country, like India, Latvia, Lebanon, Chile, Germany, the U.K., Estonia, and Australia, adopted their own brand of the TFA model, shared with my audience that technology and TFA/TFI seem to suggest, that, as a result of reform strategies, “Bye, Bye, Teacher” is the mantra for the 21st century.

Jeffrey, a 22-year-old native of Oman completing graduate studies in journalism at Delhi University, posed a very serious question at the conclusion of the paper presentation:

“Barbara, education never liberated anyone. In my country, the poor are not provided with a free education of quality. How then do solutions geared to the poor appear to frequently include a perk for those who view short-term teaching as service?”

(Continued on page 17)
Caroline Ricard:
In this study I will address the ongoing controversy surrounding the proposal by SnowBowl to expand their skiing operations and to create artificial snow with reclaimed wastewater on the San Francisco Peaks near Flagstaff, Arizona. Various groups are opposed to the proposal, prominent among them are local Native American communities who consider the peaks a sacred site vital to the maintenance of their cultural and spiritual traditions, and who believe the proposal derogates their rights and disregards the adverse effects on the environment. This study is an attempt to convey the perspectives of Native Americans whose opposition is grounded in a unique worldview, which entails a shift in our own in order to understand.

Jessica Lum, M.A. Applied Anthropology, NAU: Sustainability in International Development: Definitions, Challenges, and Lessons Learned
Since World War II, international development activities have steadily increased throughout the world. The challenge however is using modern technologies and ideas to create contextually appropriate and sustainable solutions for developing countries. My research and experiences living in Northern Ghana highlighted the necessity of implementing projects that are both relevant and economically and physically sustainable for communities.

Citlali Montano:
My research is focused on the ecology of relict old growth forest stands in the mountains of Chihuahua, in the Mexican Northwest. These temperate forests are habitat to rare and endangered species, such as the Thick-billed Parrot, which once roamed the mountains of southeastern Arizona. I am generating ecological information about past and present conditions of these forests, their fire ecology and the composition of their canopy and understory. In a true binational scientific effort, this project has brought together researchers from at least three universities in the USA and two research institutions in México, as well as government agencies and non-government partners like The Nature Conservancy.

Kati R. Routh: The Effects of Tourism in Macau S.A.R., China
Northern Arizona University, W.A. Franke College of Business, School of Hotel and Restaurant Management
My research looks at the recent positive and negative effects that the tourism industry has had on Macau S.A.R., China. Ever since the handover of the former Portuguese colony to China, Macau has flourished as Asia’s new gambling Mecca. In fact, Macau has overcome Las Vegas in terms of gambling revenues in recent years, earning its name as “The Las Vegas of the East.” However, Macau has had many positive and negative side effects as a result of this rapid tourism boom in an economic, cultural, and environmental sense.

Martin Kalb: Social Constructions of Youth in Munich, 1942-1968 (Working Title)
My dissertation analyzes dominant images of youth in Germany. More precisely, I study how and why constructs of youth emerged in Munich between 1942 and 1968. Rooted in extensive research and an interdisciplinary approach to history, I follow male and female constructs of youth including the delinquent boy and the teenager. I argue that youth is a discursive space; I also claim that such constructs of youth were mainly framed as a threat to contemporary order, morality, and stability. Resulting fears then provided the basis for expanding mechanisms of social control making constructed meanings of youth a valuable tool for societal powers.

Isela Vega, Silvia Vega, John Labs, Desiree Cooksey, Elisabeth English
Global Connections: A Curriculum for 4th, 5th, and 6th Graders
NAU, Yuma Branch Campus Teacher Education
This project utilizes effective elements of curriculum development and instruction to design a curriculum that engages students in meaningful learning. The aim of the curriculum is to integrate and embed global learning outcomes in ways that will foster awareness and appreciation of diverse cultures. The design incorporates teaching methods that are child-centered in order to help students solve problems and make connections as they attempt to understand their world.

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GLOBAL LEARN -

Jenny Baca, Chris Thompson, Greg Scott, Jon Neal: Most developing countries use simple but dirty solid fuel (wood or coal) burning stoves. These stoves create bad air pollution that kills the people that breathe in the exhaust. External air pollution is also a danger to the environment. Clean burning stoves can help reduce the risk of dying prematurely and create less harmful exhaust that goes into the air. The X Prize Foundation wishes to promote cleaner, safer use of cook stoves in the third world. The NAU Clean Burning Stove Team’s efforts will reflect this objective by developing a functioning solid fuel stove complete with thorough analysis.

Rebekka Barbier, Brenda Martin, and Alma Solis: Natural Disasters: A Curriculum for 6th Grade. NAU, Yuma Branch Campus, Teacher Educator

In the summer of 2010, Ghanaian master drummer and dancer Maputo Mensah took nine students to Ghana for a West African dance and drumming workshop. Maputo used music and the teaching of music to convey West African values such as respect and community, illustrating that music and cultural values are not mutually exclusive. Values like respect and community represent some of the values anchoring West African music in its culture. Drawing on my fieldwork in Ghana, I will provide a reflexive account of the cross-cultural influence of Maputo’s West African music and values on his American students.

Navin Singh: Globalization of Higher Education: Opportunities and Threats. The world is marked by the twin processes of economic and cultural globalization with advancement of communications technology. This globalized world is controlled by a triple deity—money, markets, and media, that have seamlessly entrenched themselves in how “education is imparted” across the globe. Over the past three decades, significant social, political and economical changes have revamped policies, set new paradigms, and shifted philosophies that contribute to the alteration of the educational landscape in general and higher education in particular. This paper presents the changing landscape of higher education in the global market, in terms of opportunities and threats.

Maggie Rios: The Distribution and Abundance of Invasive Plant Species in Monteverde, Costa Rica: A Baseline Study. 1School of Earth Sciences and Environmental Sustainability, Environmental Studies Program, Northern Arizona, Flagstaff, AZ 86001 / 2ProNativas, Monteverde, Alajeula, Costa Rica

As an intern, I helped to advance ProNativas’ mission of promoting environmental protection through the use of native species gardens by quantifying invasive plant species. I conducted a baseline study on the distribution and abundance of invasive plant species in the Monteverde region. I assessed the frequency of occurrence and areal extent of nine invasive species at six sites. The frequency of occurrence, area of coverage, and location was recorded in a GIS database and mapped. Results suggested that Musa velutina had the most extensive distribution of the nine species. This dataset provides the baseline for future invasive plant monitoring programs.

Natalie Bedard: Biodiesel made from rapeseed, which is from the same family as the canola plant, is used in Europe and can been seen growing throughout Germany. For this project, additional research was done to determine if enzymatic conversion of rapeseed oil created as pure a product as chemically converted rapeseed oil. Once this was determined, various methods were tested to find the most effective method of enzymatic conversion of rapeseed oil to biodiesel.

Jenny Baca, Chris Thompson, Greg Scott, Jon Neal: Most developing countries use simple but dirty solid fuel (wood or coal) burning stoves. These stoves create bad air pollution that kills the people that breathe in the exhaust. External air pollution is also a danger to the environment. Clean burning stoves can help reduce the risk of dying prematurely and create less harmful exhaust that goes into the air. The X Prize Foundation wishes to promote cleaner, safer use of cook stoves in the third world. The NAU Clean Burning Stove Team’s efforts will reflect this objective by developing a functioning solid fuel stove complete with thorough analysis.

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Navin Singh: Globalization of Higher Education: Opportunities and Threats. The world is marked by the twin processes of economic and cultural globalization with advancement of communications technology. This globalized world is controlled by a triple deity—money, markets, and media, that have seamlessly entrenched themselves in how “education is imparted” across the globe. Over the past three decades, significant social, political and economical changes have revamped policies, set new paradigms, and shifted philosophies that contribute to the alteration of the educational landscape in general and higher education in particular. This paper presents the changing landscape of higher education in the global market, in terms of opportunities and threats.

Maggie Rios: The Distribution and Abundance of Invasive Plant Species in Monteverde, Costa Rica: A Baseline Study. 1School of Earth Sciences and Environmental Sustainability, Environmental Studies Program, Northern Arizona, Flagstaff, AZ 86001 / 2ProNativas, Monteverde, Alajeula, Costa Rica

As an intern, I helped to advance ProNativas’ mission of promoting environmental protection through the use of native species gardens by quantifying invasive plant species. I conducted a baseline study on the distribution and abundance of invasive plant species in the Monteverde region. I assessed the frequency of occurrence and areal extent of nine invasive species at six sites. The frequency of occurrence, area of coverage, and location was recorded in a GIS database and mapped. Results suggested that Musa velutina had the most extensive distribution of the nine species. This dataset provides the baseline for future invasive plant monitoring programs.
The Struggle to Be American: Asian Immigrants, Race, and Citizenship

By Prof. Mark Beeman

Immigrants to the United States have not all been welcomed equally. While immigrants from Europe were given the opportunity to naturalize and avail themselves of the rights and privileges of citizenship, immigrants from Asia were presented with obstacles that prevented them from full participation in society.

The first major wave of Asian immigrants came as contract laborers from China, serving mainly as mine labor and railroad construction workers. While the laborers were often lauded for their hard work by their employers, Chinese labor was opposed by some powerful politicians and trade union bosses. The Chinese Exclusion Act, passed in 1882, was the first legislation that targeted a racial group to restrict immigration to the United States. As other Asian laborers made their way to the United States to find work, organizations working closely with politicians from western states looked for justifications to exclude them as well.

The Japanese and Korean Exclusion League was formed in 1905 in San Francisco. Racializing the more numerous Asian immigrants into one “Asiatic” category, the league argued, just as they did with the Chinese, that immigration from Japan and Korea should be stopped. “Asiatics,” they debated, threatened both white American labor standards and civilized norms generally. By 1908, the league had changed its name to the Asiatic Exclusion League, specifically to include immigrants from India as part of the perceived “Asiatic” threat. The league’s efforts were rewarded by politicians through both land policy and immigration policy.

In the early 1900s, a number of Asian immigrants had become successful farmers in California. Anti-Asian interests there pushed for a series of “Alien Land Acts” from 1913 through 1923 that prevented Asian immigrants from owning, leasing, and “cropping” farmland. However, these laws did not discriminate against European immigrants who were not naturalized. (Historically, European immigrants were always given the right to naturalize.) After the Civil War, Congress extended naturalization rights to people of African descent as well, but the wording was carefully constructed to avoid extending this right to Asian immigrants, who were legally defined as “aliens ineligible for citizenship.” Thus, first California, then other western states, enacted laws designed to prevent Asian “aliens ineligible for citizenship” from earning a living through owning and leasing farms.

Asians were also targeted by discriminatory immigration policies. By 1917, at the initiation of western politicians encouraged by the Asiatic Exclusion League, Congress passed a restrictive immigration policy based upon an “Asiatic bar zone.” The zone encompassed East Asia to the Indian subcontinent. Japan was temporarily spared the immigration prohibition due to a previous “Gentlemen’s Agreement” treaty in which the Japanese government agreed not to send unskilled laborers to the United States.
Periodically, there are news headlines about human population growth that briefly garner much attention, but then inevitably fade, until other concerns such as global climate change, wars, or resource scarcity issues revive another short-lived interest in the topic. Similarly, the subject of immigration, especially when tied in to conflicts of regional interest, often dominates the news—sometimes reaching hysterical proportions. We are currently living in yet another such news cycle, as the world population zeroes in on the total of human inhabitants of our planet reaching 7 billion by early 2012. Moreover, as the recent economic recession has dragged on, here in Arizona and elsewhere, the topic of immigration, and, specifically, illegal immigration from Mexico and other points south of the border, has fanned the fuels of fear, insecurity, and anger. Many such fears and worries are baseless or misrepresented for political objectives, but some of them create a legitimate basis for discomfort and apprehension. Yet erroneous assumptions about population size, the impact of population growth, and immigration seem to be at the heart of many such debates.

To begin, let’s take a close look at population growth, and ask: What do these numbers actually mean? World population is estimated by demographers to have been around 250 million (one quarter of a billion) at the beginning of our current calendar, around the time of the birth of Christ. Demographers further estimate that by 1650, the global human population had doubled and totaled half a billion. Another doubling of the human population occurred between 1650 and 1850, when the population reached 1 billion. Interestingly, within 80 years—by 1930—our global population had doubled yet again, to 2 billion. One must keep in mind the concomitant improved knowledge and application in the areas of sanitation, food production, public health, and access to these resources as factors affecting such growth. By 1975, the global population had doubled again, to 4 billion. And today we are on the cusp of counting 7 billion human inhabitants. What do these figures mean to us? Are we to worry or celebrate? I would answer that we could do both, but understanding why we should worry or celebrate is more important than uncorking the bottle of champagne or bringing out the anti-depressants.

Not every human being has the same impact on this planet’s resource consumption or on the production of waste materials and toxins that compromise the sustainability of the harmonious existence of all forms of life on this magnificent blue-green globe. Many economists and natural resource demographers and ecologists have argued that the consumption of basic energy resources in the affluent world, in relation to resource consump-
ALUMNI REUNIONS


NAU Alumni at Reunion in Dammam, Saudi Arabia, March 3rd, 2011
Alumnus Profile:

**Angie Lee**

Angie Lee graduated in 1991 with a BFA in graphic design. Her initial aspirations for a college career were focused on finding an institution in close proximity to friends, but she eventually moved beyond those geographic limitations. So why did this college student from Malaysia choose NAU? She knew that she wanted “a small college with a small population, without the distractions of a large city, and offering a climate that included four seasons.”

Angie is a balanced and dedicated woman, and shortly after completing her degree at NAU and her internship in New York, she opened her own design company in Kuala Lumpur, Malaysia. Today she has a portfolio of international clientele that includes such multinational companies as IBM, Shell, Microsoft, and Hewlett-Packard. According to Angie, the internship “helped a lot in understanding the industry and its jargon, and of course, my time at NAU helped with my credentials. Experience is not just from the four walls of the classroom or even the books one reads for the degree. Experience is from one’s exposure to life . . . what you encounter and see in everyday life is far more important than one realizes.” This sage advice is a message that she wishes to share with today’s students. She feels that her experience as an international student helps her understand clients from around the world. The skills she gained from interacting with American, Taiwanese, Indian, and Mexican students at Northern Arizona University solidified her interpersonal and intercultural communication. She hopes that NAU and the Flagstaff community continue to learn about the different nations that are represented on campus so that there is better understanding of international issues and cultures.

**From Graphic Design Student to Successful Businesswoman**

By Mandy Hansen

Angie is a balanced and dedicated woman, and shortly after completing her degree at NAU and her internship in New York, she opened her own design company in Kuala Lumpur, Malaysia. Today she has a portfolio of international clientele that includes such multinational companies as IBM, Shell, Microsoft, and Hewlett-Packard. According to Angie, the internship “helped a lot in understanding the industry and its jargon, and of course, my time at NAU helped with my credentials. Experience is not just from the four walls of the classroom or even the books one reads for the degree. Experience is from one’s exposure to life . . . what you encounter and see in everyday life is far more important than one realizes.” This sage advice is a message that she wishes to share with today’s students. She feels that her experience as an international student helps her understand clients from around the world. The skills she gained from interacting with American, Taiwanese, Indian, and Mexican students at Northern Arizona University solidified her interpersonal and intercultural communication. She hopes that NAU and the Flagstaff community continue to learn about the different nations that are represented on campus so that there is better understanding of international issues and cultures.

Mandy Hansen is Director of International Admissions and Recruiting
Lessons of History
(continued from page 2)

To make sense of the events currently unfolding in the Middle East and to be alert to similar precipitating factors arising in our own country, however, we must have a sense of history and be able to appreciate its global character. Probably most importantly, we must remember. That these revolutions seem to repeat themselves speaks to the proclivities of the powerful, but just as complicit is the forgetfulness of the masses. This seems to echo Hegel’s view that “the only thing we learn from history is that we learn nothing from history.” The late Tony Judt laments, in Reappraisals: Reflections on the Forgotten Twentieth Century (2008), that “the belief that that was then and this is now, that all we had to learn from the past was not to repeat it, embraced much more than just the defunct institutions of Cold War–era Communism and its Marxist ideological membrane. Not only did we fail to learn very much from the past—this would hardly have been remarkable. But we have become stridently insist—our economic calculations, our political practices, our international strategies, even our education priorities—that the past has nothing of interest to teach us. Ours, we insist, is a new world; its risks and opportunities are without precedent.” (Italics supplied by Judt.)

The role of the academy, therefore, engaged in and committed to global education is clear. The lessons that must be learned are not only of American history; they are lessons that are global precisely because the events of the past and the lessons they teach can steer us to a more secure future and speak to the yearnings of the human spirit, yearnings that both defy and transcend national, cultural, ethnic, and religious boundaries. If we learn the lesson that Mohammed Bouazizi initiated, this would be the most profound way in which we can honor his memory. And we would redeem ourselves, maybe for a few more decades, from the seemingly inexorable slide to injustice, exploitation, and revolution.

Connecting Students
(continued from page 3)

vibrant and nurturing platform for student success by combining First Year Seminars on a growing number of topics with action research teams, collaborative relationships with community partners, mentoring of first-year students by older undergraduates and graduate students, and a growing number of closely related thematic Living Learning Communities in the dorms. By becoming involved in these ways, students are empowered to cultivate meaning, hope, and excitement instead of cynicism, resignation, and despair in the face of the social, ecological, and political crises.

What does all this have to do with international education and world traveling? Consider a few examples. One of the engaged pedagogy opportunities is called Public Achievement (PA). In PA, NAU students work in pairs with teams of elementary-school students in some of the most diverse schools in Arizona. NAU students learn about democracy, citizenship, leadership, and community stewardship, and then work as coaches with elementary-school students to enable them to form an action team to identify and creatively address an issue in the school, neighborhood, or community. Elementary-school students have chosen issues such as hunger, school gardens, bullying, playground equipment, poor library resources, among others, and have worked collaboratively to create significant responses and cultivate an exciting and hopeful sense of democratic empowerment. All this occurs in communities just minutes from campus, where longtime resident Hispanic students work alongside recent immigrants from south of the border, Navajo, Hopi, white, and black students. The arts of respectful listening, giving compelling voice to insights of one’s traditions, and cultivating capacities to cooperate creatively across substantial differences are paramount. Because classrooms are full of students from many nations, whether they are indigenous or from abroad, some of the most exciting instances of global learning happen right in our own backyard. It is striking that, as much as they offer to elementary-school students, NAU students consistently express a sense that they are learning and receiving even more than they can give.

The same can be said for students who work on the immigration action research team in collaboration with diverse people in our community to create “audio projects” that give voice to multiple perspectives on immigration and conduct research that leads to “civic academies” for the public that provide education on the economic, political, social, and cultural aspects of immigration. Students
working on action research teams that address problems pertaining to sustainable water, food, energy systems, or climate change find that they must draw upon and synthesize knowledge from many disciplines—biological, ecological, chemical, and atmospheric sciences, to sociology, politics, and economics, to education and beyond. In every case, students must stretch their imaginations, their capacity for empathy, their ability to integrate knowledge from across the disciplines, their ability to form relationships for collaborative leadership that make a real difference in the world. Preliminary analysis of student feedback indicates that enthusiasm for this type of pedagogy is very high and will likely enhance student retention. Acclaim for this signature NAU initiative in nationwide networks such as the American Democracy Project suggests that CRAFTS will also aid in our ability to recruit outstanding students.

As more and more students take advantage of these opportunities at the outset of their tenure at NAU, they will become better prepared to participate in our expanding opportunities to study abroad, in ways that enhance what they are able to give and receive with partners in communities around the world.

Romand Coles is the Frances B. McAlister Endowed Professor and Director of the Program for Community, Culture, and Environment; Blase Scarnati is Associate Prof. of Music and Director of the First Year Seminar and the Global Learning Initiative

Oral History Projects
(continued from page 4)

is sometimes represented, and red if their culture is never represented. The students also mark what part(s) of their culture they referenced being represented, sometimes represented or never represented at each place (examples: history, values/beliefs/religion, traditional clothing, food, traditions/ceremonies, language, people that look like me).

I provide an example map here, where a Native American NAU student chose to map out NAU as well as her home community, Tuba City. You can see color markings for each of these maps and symbols indicating different parts of her culture. Interesting to note about these maps is first that the student, unsolicitedly, mapped out two different communities, NAU and her home community. With my first year seminar students, I would propose that, from this map, we could analyze borderland issues. Also interesting to note is how little green is marked on NAU’s campus. I would guide my first year seminar students to invite the drawer to explain the map and the reason for the chosen colors at the given sites to better understand personal stories.

Along with inviting students to draw the map, a significant part of the class is social action. I guide my first year students to discuss with the students drawing the map, “How could the spaces you’ve marked red and yellow become more green?” The K-12 students offer responses like writing letters, protesting, forming student organizations, inviting teachers to implement content in their curriculum and making allies in the schools. We are currently at this phase in the process, where K-12 students have proposed ways to make spaces more green and made promises on what actions they would take after our discussion. We will return to the sites to talk to the K-12 students and learn what they were able to implement. From this information, my NAU students will make recommendations to the sites and educators in general, on ways to make spaces and places more welcoming to all students. We will present findings at the sites and again in the College of Education April 2011.

Globalized Education
(continued from page 9)

venture philanthropists and multinational corporations) address complex educational reform across the globe, is problematic.

It seems that TFA and TFI avail a platform (and patriotic name) that many buy into without interrogation, investigation, and information. Why is public education (in the U.S.) or government schools (in India) different for children of the working class, minorities, and others who, on the surface, appear voiceless? One must ask, “Why is that so, when democratic systems and global initiatives support the promotion of the ‘public good?’”

Barbara Veltri is Assistant Professor in the Department of Teaching and Learning

References:


Veltri, B. T. (2010). Learning on Other People’s Kids: Becoming a Teach For America Teacher, Charlotte, North Carolina, Information Age.
States. However, several years later, the Restrictive Immigration Act of 1924, sometimes called the Japanese Exclusion Act, prevented virtually all immigration from Asia.

Litigation was one way in which Asian immigrants fought for citizenship rights. From the late 1870s to 1944, the courts decided 53 cases concerning race and citizenship rights, of which 45 involved Asian or Pacific Islander petitioners. Two of the cases went all the way to the United States Supreme Court. Takao Ozawa v. United States was decided in 1922. Ozawa’s cultural assimilation and good character were not questioned by the Court, but his racial qualification for U.S. citizenship was. The Court denied his request, reasoning that whites were racially “Caucasian,” and because Ozawa was not “Caucasian,” he did not qualify for naturalization. Several months later the Court heard United States v. Bhagat Singh Thind. An immigrant from India, Thind argued that he met the standards of whiteness previously set by the Court. The Court agreed that some scientific authorities had classified Indians as racially “Caucasian.” This time, however, the Court ruled that Thind did not meet the definition of “white” as understood by “the common man,” and therefore he did not qualify for naturalization.

Racial discrimination against Asian immigrants remained codified in U.S. law until after World War II, and it was not until 1952 that the naturalization restrictions were eliminated. Discriminatory restrictions on Asian immigration remained until 1965. But by the late 1960s, the Asian American Movement had formed and a new chapter in the struggle for Asian American rights had begun.

Toil on her children, then we must act.” The current genpatsu nanmin (“nuclear power refugees”) have translated the reality of nuclear development into a language that the world can feel. Humanity is speaking clearly, and I feel as a result of this new communication, though painful, that so many beautiful, hopeful and inspiring things have also been brought to the surface. I have been so moved by the feelings of sincere and unconditional caring and support that I have received from friends, family, and even strangers this last week, and equally as moved by the demonstrations and vigils manifesting in a multitude of forms that have been erupting with contagious passion all over the world.

You may think me young, naive, callous or insane to bring up politics in a time like this. But I tell you that I have prayed at the graves of unborn aunts and uncles murdered by atomic bomb disease and I feel entitled to tap into ancestral lessons this week. It is from my vantage point of both proximity and distance from this crisis as a current resident of southern Japan; from my vantage point of both proximity and distance from the horrors of Nagasaki and Hiroshima as the granddaughter of a Nagasaki Hibakusha, that I say with great hope and longing that this darkest of nightmares may serve as a catalyst to once again pump life into the stagnant pools of the anti-nuclear movement, to overflow them so that the energies built and created there may also nourish other movements. To me the words “activist” and “healer” are interchangeable.

This gravest of tragedies has been an ugly and unsought-after vindication of so many under-supported social justice struggles, most poignantly the anti-nuclear movement. This eventuality was predicted time and time again and most people sat in silent denial as more and more nuclear power plants were constructed, not
just in Japan, but around the world. So many people sit, even now, in disbelief, quietly burying their fears as development plans for hundreds of more (albeit “safer”) nuclear reactors remain on the discussion tables amongst the grotesque suffering of tens of thousands of displaced peoples. In fact, just a week before the Japanese earthquake, a bill was introduced in the U.S. Congress to permit 200 more commercial nuclear reactors in the U.S., “enough to triple current megawatt capacity, by 2040.” Tucked into that bill is a clause that revives the long debate around nuclear waste storage in Nevada’s Yucca Mountain, a move that Native American and environmental groups have been resisting for decades.

But amongst this cold and dark time also resides new growth. A new spring is just beginning and each day we rise anew, we each are gifted an opportunity to carve out a more sincere definition of accountability, to hold ourselves and each other responsible in new ways. Although our recent wounds are still gaping, still throbbing, the time is now for us to rise like tsunamis after earthquakes and once again recommit ourselves to the healing of the future for the next generation.

I’ve spent several days writing and revising this piece. It started out as some brief resource suggestions to friends but morphed into this. I was propelled to keep writing by my own desire to combat the helplessness I feel sitting here, relatively safe, overdosing on miso, kombu, and the news in the southern prefecture of Nagasaki, Japan as coordinated relief efforts have not yet begun accepting volunteers. This time of mourning has given me a good opportunity to reassess what I hold important and clear out some clutter to make room for the work that lies ahead. So many exciting possibilities for new growth and new cooperation are resonating in the undertones of this funeral song. Those of us living in the overdeveloped world have become so accustomed to the ubiquitous take-take-take lifestyle that we have forgotten how to stretch our arms, to reach them out, to reach them up in times when our spirits long to do so the most.

This is an open letter to anyone feeling helpless at this time. I end this letter in solidarity and with hope, taking comfort in the knowing that the same moon shines light down on all of us. Each day I wake up to the budding and flowering of the ume, momo, and the sakura as well are beginning to bloom, as if to say 春が来るよ. (spring is coming).

Crystal K. Uchino is an NAU alumna who minored in Ethnic Studies and currently lives in Japan

Population Growth (continued from page 13)

Finally, regarding immigration at times of economic contraction: A distinct and proud tradition of the United States of America has been its characterization as a nation of immigrants. Yet a historical fact remains that while no other country on this planet has seen such massive population relocation from abroad as ours, the adjustment patterns of immigrants upon their arrival to our shores have been influenced by existing economic conditions. When the labor and skills of immigrants have been needed, they have, for the most part, been welcomed. When unemployment and access to the job markets have been limited, many immigrants have become the subject of scorn, discrimination, or outright rage, including those who were indigenous to this land.

We now live at a time of economic contraction. Events unfolding regarding the Hispanic immigrants amongst us in Arizona and in the Southwest are a reflection of this latest chapter for those who may seem strangers to our shores. Yet, in an era of globalization, should we not be a beacon of hope, rather than despair, for the international community?
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