

# RICE AT LARGE

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HISTORICAL VALUE: Anne Chao is on a mission to collect and archive the voices and memorabilia of the Houston Asian community.

## **Oral History Records Stories of Local Asians**

Anne Chao '05 grew up a child of the world. Her father was a career diplomat who moved his family from Taiwan to the Republic of the Congo, Australia and the United States. Young and eager, she learned the languages of those countries - Chinese, French and English — and readily absorbed their cultures.

"By living in someone else's community and respecting the tradition and culture of that community, you begin to understand the people, and it really broadens your mind quickly," Chao said.

As she traveled around the globe, Chao never forgot the history of her people. She majored in Chinese studies at Wellesley College and received her master's and Ph.D. at Rice in modern Chinese history in 2005 and 2009, respectively.

# **Rice Students Help Refugees**

Every year, some 2,000 refugees arrive in Houston to start a new life in an unfamiliar city. To help them ease the stress of resettling, members of the Rice community offer them English classes, advise on how to navigate the social system and extend a friendly hand of comfort.

Once a week, Danna Ghafir '18, alum Zainab Ghwari '13 and I, Jena Lopez, volunteer with Interfaith Ministries (IM) Women's Initiative, a social morning program for Arabic-speaking women. Most of the refugees who attend have suffered the ravages of the wars in Syria and Iraq.

Every week, nearly two dozen women and up to 10 children come together with a team of volunteers at Neighborhood Centers in Sharpstown. Over coffee and pastries, they chat among themselves in Arabic, form

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Today, Chao is helping others retain their history. In 2009, Chao co-founded the Houston Asian-American Archive (HAAA) whose mission is "to foster a deeper understanding of Houston's immigrant history" and "to document the unique cultural legacy of Asian-Americans."

Managed by the Chao Center for Asian Studies and housed in the Woodson Research Center in Fondren Library at Rice, HAAA is one of the few archives in the country that documents the lives of Asian-Americans. "Anyone writing about Asian history in Texas must include our archive," Chao said, "or else

to remain there until his brother in Houston could raise enough money to send for him. In the meantime, Gee fended for himself by shining shoes for 5 cents and living in a boarding house, where he received only one meal a day. His hunger was partially placated by the free cookies and milk his teacher gave him. He was so hungry, though, that he stole food from street vendors. A year later, his brother finally brought him to Houston. Gee worked in his brother's grocery store for a year or two, before returning to San Francisco for the sheer purpose of repaying the food he had stolen from vendors.

Gee retired after many years of owning and operating grocery stores and other busi-

also participated in an interview. Sun was born in Shanghai and grew up during China's Cultural Revolution. She came to America on a full scholarship to Princeton University in 1981 and graduated cum laude in 1985 from the Woodrow Wilson School of Public and International Affairs. She earned her law degree from Columbia University School of Law in 1988.

"The interview evoked many memories about growing up in China and what we had to go through to get to the United States," she said. "I think oral history is a great way to preserve history, so I think it's very important for people to participate in the project."

When Chao started the oral history project



What I found in these interviews was human dignity.

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to come here, but their moral courage sustained them
and they were able to survive and succeed.

— Anne Chao

you are not a great historian."

Over the years, HAAA has collected a vast array of memorabilia, including letters, diaries, photographs and newspaper articles. The oral histories, however, are the most fascinating part of the collection. Using Rice student interns, HAAA has interviewed more than 145 people who represent many Asian cultures: Chinese, Japanese, Filipino, Vietnamese and South Asian, among others. They come from all walks of life, from prominent business owners to working-class families, and they all have a poignant story to tell about the struggles of adjusting to a new country and culture.

"What I found in these interviews," Chao said, "was human dignity. Many of these people suffered horrendous experiences to come here, but their moral courage sustained them and they were able to survive and succeed."

Raymond Gee, for example, came alone from China when he was 13 and entered the United States through San Francisco. He had nesses. He is grateful that HAAA picked him for the interview because he thinks it serves a historical value. "This is a good way to share the history of our people," he said. "I like the idea of passing down this knowledge verbally to younger generations."

According to Chao, these oral histories reveal how those who came from China learned to network and help each other in order to survive. Such a person was C. Y. Chu. He received his college degree in California, but could not find a job because he was Chinese. An Asian couple in San Antonio eventually hired him to teach Chinese to their children. Chu later moved to Houston and became a successful grocer. He then started letting new arrivals from China stay at his house and helped them start their own grocery businesses.

"They supported each other because no one else would help them," Chao explained.

Y. Ping Sun, university representative and wife of Rice President David Leebron,

eight years ago, she said that most of the people that HAAA interviewed were her friends, but now they include people that others have recommended. The request for interviews has grown so much that HAAA is having trouble keeping up with those demands. She said that HAAA hopes to hire more interns to increase the number of interviews from 16 a year to 40.

HAAA is also creating a documentary, "A Treasured Heritage: Stories From the Houston Asian-American Archive," which will showcase a selection of the best interviews.

"I am so moved by their ability to uphold their spirit, their dignity under incredibly difficult circumstances," Chao said. "When you see how emotionally vested they are, you really feel inspired to honor their stories."

**DAVID D. MEDINA**Director
Multicultural Community Relations

**Public Affairs** 

#### Refugees Continued from Page 1

friendships, and receive insights and guidance on life in America.

As refugees from war-torn lands, the women have left behind everything, including loved ones and their support networks. Life in America can initially be lonely, and some of the women spend long hours isolated at home. The group provides a safe place for them to socialize, share information and talk about any issues they face.

Learning English is one of the biggest challenges, and the program offers the women an opportunity to practice English and develop friendships with the volunteers in a relaxed environment.

Ghafir, who is Syrian-American, got involved because she felt moved to help people from her own culture. She speaks Arabic and is able to offer encouragement and advice to the women.

"This group allows women to voice their

concerns in an extremely uncertain time and feel heard and supported," Ghafir said. "Having to leave their homes for a foreign land in which they don't know the language is an added stress to an already traumatizing experience. This group is important because it helps relieve some of that stress by providing emotional support, information about Houston and empowerment."

Refugees receive six months of funding when they arrive in the United States. Afterwards they are expected to be independent. A life of true independence, however, does not begin after six months. It's not always easy to cope, because critical resources are stretched thin and social networks take time to develop, Ghafir explained.

Houston is the No. 1 resettlement location for refugees in the United States. Volunteers are a crucial component in

ensuring that fresh arrivals can understand and cope with life in a new environment. Volunteers do everything from picking up newly arrived refugees from the airport to mentoring entire families.

Chloe Krane coordinates the IM's Women's Initiative Project. "It's vital to support these women as they create a new life for themselves and their families," Krane said. "It could be any of us in their situation if circumstances were different.

"Refugee families who have a local friend have a much higher rate of socioeconomic success and assimilation than those without," Krane said. "I recommend people befriend a refugee any way they can."

**JENA LOPEZ '17**Rice Undergraduate



STARTING OVER: Refugee women gather to support each other and learn how to create a new life in a new country.

#### To Dream of a Career in STEM

DREAM — Achievement Through Mentorship is a student club that strives to increase the number of underrepresented minorities majoring in STEM fields. The group does this by mentoring middle and high school students.

Each week, teams of mentors head to local K-12 schools to guide students in designing and building solar cars, bridges, catapults and other engineering projects. In addition to these projects, the club also encourages students to pursue higher education by guiding them through the process with useful information and personal perspectives.

In 2006, Brent Houchens, a former Rice faculty member, worked with three undergraduate students to start an after-school tutoring program at Houston's Stephen F. Austin High School in the East End, focusing on helping students with homework and science fair projects.

In 2007, the club shifted its focus to college access and preparation through mentorship, as opposed to simply tutoring, and officially became what DREAM is today. The effectiveness of the program relies on the relationships between the Rice mentors and their mentees as they work on engineering design challenges.

These design projects not only facilitate the relationship building process, but also expose the mentees to engineering fields through fun, hands-on projects. Each semester culminates in DREAM Day, when the mentees come to Rice to visit the campus; showcase their projects in a design competition; and learn about admissions, financial aid and college life from members of the Rice community.

In its first year of mentoring, DREAM worked with one high school in which 13 Rice students mentored 25 high school students. Ten years later, in 2017, more than 50 Rice students now mentor more than 200 students in eight weekly sessions at five different schools. In a typical semester, 75 percent of the mentees are Hispanic and 20 percent are African-American. About 50 percent speak a language other than English at home.

Most of the mentors are undergraduates who volunteer to stay with one group of mentees for a semester, visiting the school once a week. DREAM has been successful, in part, because of the half dozen head mentors, who devote an average of 400 hours in at least three semesters. Their duties include organizing the program at their schools, giving physics and college prep lectures to their mentees, managing their mentors and coordinating the school's DREAM Day.

To track the progress of the participants, DREAM collects survey data from the mentees at the beginning and end of each semester. The data collected reveals the mentees' understanding of the college admission process as well as their familiarity with the physics concepts of a project and is used to evaluate the program's effectiveness. After 10 years, DREAM continues to grow and evolve.

# DAVID DANIELS

Rice University
Head Mentor
DREAM

# **A Capital Experience for Rice Students**

For two days in February, 12 Rice students shadowed attorneys and alumni mentors in Austin, learning firsthand the practice of law.

The students undertook these activities as part of Rice's Law, Justice and Society Scholars program, a joint venture of the School of Humanities and the School of Social Sciences. The students are participating in a semesterlong practicum in Houston, which includes an internship, faculty support, professional workshops, and, with the launch of the Austin externship program, valuable alumni mentorship.

The students spent their first day in the office of the Texas attorney general, thanks to Henry de la Garza '87. After a breakfast reception with Jeffrey C. Mateer, first assistant attorney general, the students shadowed mentors for a few hours in the morning and afternoon. Mentors included Judy Hughes '94 and Beth Chun '09 and volunteer staff attorneys. Students also had the opportunity to shadow Adrianne Waddell '12 at her firm, Holland & Knight.



**LUNCH WITH LAWYERS:** Rice students shared a meal with Rice alumni lawyers in Austin.

In the evening, the students and the Rice Austin attorneys group gathered for a mixer, thanks to Manuel Escobar '01 at his firm, McGinnis Lochridge. In attendance were the dean of humanities; the dean of social sciences; Shannon Vale '77, Association of Rice Alumni president; Toya Bell '87, Austin Rice alumni president; members of the Rice Austin attorneys group; and Rice students.

On Friday, the students spent their morning session at the Travis County district attorney's office. They attended a panel discussion with Emily Edwards '06, Keith Henneke '04 and Holly Taylor '89, who talked about their careers and gave advice about law school. The students then observed court proceedings and saw how lawyers asked questions of the presiding judges.

To top off the visit, the students had lunch with Toya Bell '87, Tonia Lucio '90 and Adrianne Waddell '12. The lunch was hosted by Lucio's firm, Richards, Rodriguez, and Skeith LLP.

If you would like to learn more about how to get involved in the program for next year, please contact the program co-directors: Alexander Wyatt '11, assistant director at the School of Social Sciences at alex. wyatt@rice.edu or Nyeva Agwunobi, manager of Student Programs at the School of Humanities at nyeva@rice.edu.

#### ALEX WYATT

Assistant Director of Gateway School of Social Sciences

# **Computer Engineering Skills in a Snap**

Rice electrical and computer engineering (ECE) students are setting out to teach kids computer engineering skills, with the help of Texas Instruments and an activity kit called Snap Circuits.

Snap Circuits are color-coded parts that snap together to make a variety of electronic devices, such as AM radios, burglar alarms and doorbells. The kit helps students develop a fundamental understanding of electrical engineering.

"I first heard about Snap Circuits last year," said Jorge Quintero, a Rice ECE senior. "Texas Instruments spearheads some of this, and they got in touch to ask if Rice ECE students wanted to participate again this year, and we said, 'yes."



A mix of Rice students and Texas Instruments volunteers visit local elementary, middle and high schools to guide students through an engineering related activity. The students are placed in teams of five to six people, working with one or two Snap Circuits kits and a volunteer.

"The first thing we usually teach is digital logic — we guide them to set up the kit to turn an LED light on and off. It's an easy, intuitive and highly observable activity, so it works well," said Chance Tarver, a Rice graduate student in ECE.

The students also learn to make truth tables, plots that explain the output of a circuit in terms of possible inputs to that circuit. "They learn that the way they put together the kit is representative of binary values," Tarver added.

"From a scientific perspective, we show them that we have models for how we expect systems to behave, so we can make a prediction and then measure to see how close we were," Tarver said. "We also demonstrate that we can verify the models and use our predictions to make more sophisticated designs. We teach them the basics of electrical engineering, and we talk about Ohm's law, what the job of the resistor is, what the job of the capacitor is, relevant units and so on."

Quintero is grateful for the experience. "I think it is really important for Rice students to be involved in community service. For undergrads, campus can be a bubble. I think it's important to get exposure to special issues that we may not experience on campus. It's also a good opportunity to explain something to a group of students that might not know what Ohm's law is or what resistors are," he said.

Tarver agreed. "Teachers are excited that we give these lessons. One teacher we spoke with stressed that most jobs in the future will be in science, technology, engineering and mathematics (STEM), and was glad to start kids on these kinds of activities at an early age," he said. "We've also gotten some very enthused student groups. We worked with a science club where the students asked questions about every part of the process and were excited and curious about what we were discussing."

#### JENNIFER HUNTER

Visibility Specialist Electrical and Computer Engineering

#### **Basketball + Mathematics = Excitement**

Rice University's Tudor Fieldhouse was bustling with 4,100 energetic public school students who came to watch a basketball game Dec. 15, 2016, and learned some mathematics in the process.

Sponsored by Rice Athletics, School House Mania is an annual sporting event that also provides educational opportunities to students from the Houston area. Students came from seven school districts and were deafening as they cheered the Owls on to victory over St. Edwards University.

Before the start of the game, the Rice University School Mathematics Project (RUSMP) led the students in a series of mathematical activities. Also helping students and teachers maneuver through these activities was the Rice Office of STEM Engagement.

RUSMP welcomed the students to Rice with a slideshow that spotlighted the mathematics that could be found on campus. Students then participated in the game "Sammy Says," a version of "Simon Says," in which students were to follow directions given by Sammy, the mascot of the Rice Owls.

In this game, students demonstrated their knowledge of computation and geometric terms by physically modeling the answers. While the basketball teams practiced on the court, the students were given mathematical clues to determine the jersey numbers for the starters of the Rice Owls men's basketball team. The students' teachers, as well as the basketball players, were elated when the students yelled the correct jersey numbers.

The mathematical activities continued as RUSMP used real-world objects to describe translations, reflections and rotations. After a brief review of these transformations, the stands were rocking as the students and teachers danced to the "transformation shuffle." Students were then led on a tour of Houston through a slideshow in which they answered mathematic and science questions. The presentation ended by having students estimate the time it would take to complete "the wave" in Tudor Fieldhouse.

The high-spirited students were exuberant as the wave traveled around the fieldhouse with all sections of students briefly standing, yelling and raising their arms in nine seconds. The mathematics theme continued during breaks in the game when students were challenged to answer trivia questions related to real-world situations.

RUSMP has promoted Rice University's excellence beyond the hedges in preK-12 education by providing support to precollege institutions across the state since 1987. RUSMP continues to be the primary catalyst of sustained, progressive change in education in Houston-area schools and across Texas by providing numerous programs for leaders, teachers and students and by supporting schools and school districts. This is the third year for RUSMP to collaborate with Rice Athletics on School House Mania.

#### SUSAN TROUTMAN

**Director of Secondary Programs** 

#### CAROLYN L. WHITE

Director of Elementary Programs RUSMP

### Owls Support Mental Health Awareness

An estimated 43.6 million Americans aged 18 or older suffered from a mental illness in 2014, according to the 2014 National Survey on Drug Use and Health.

Despite its prevalence, mental illness is all too often associated with stigma, and many of those with a mental illness do not receive access to care.

Rice is doing its part to raise awareness of this health issue by participating in Houston's annual National Alliance on Mental Illness (NAMI) Walk.



National Alliance on Mental Illness

Last year, Rice students, faculty and staff came together to raise about \$500 in support of NAMI Greater Houston and pledged to walk in Houston's annual NAMIWalks in the spring.

The walk supports NAMI's work in advocacy, education in communities through training and programs, and care for those affected by mental illness and their loved ones. It is an incredible gathering of Houstonians who assemble for a three-mile walk to share experiences of hope in what is truly an electric environment.

This year, Rice hopes to increase the number of participants to help raise awareness about this important topic and bolster well-being on campus. All Rice community members and their families, friends and loved ones (even those of the furry, four-legged variety) are invited to support and participate in this year's NAMIWalks.

The 2017 NAMIWalks Greater Houston will be held Saturday, May 6, at 9 a.m. in Sam Houston Park. To register to walk, donate or learn more about the event, please contact Lillian Seidel at Ics6@rice.edu or call 713-348-3916.

#### **LILLIAN SEIDEL**

Recruiting Coordinator and Alumni Liaison Center for Career Development

# **Encouraging Students to Study Computer Science**

The Rice University School Mathematics Project (RUSMP) facilitated an exciting Hour of Code event at Burrus Elementary School, a school in the Houston Independent School District, with Houston council member Karla Cisneros during Computer Science Education Week.

Launched in 2013, the Hour of Code started as a one-hour introduction to computer science designed to demystify coding, show that anybody can learn the basics and broaden participation in the field of computer science. The Hour of Code has since become a global movement, supported by more than 400 partners and 200,000 educators worldwide and reaches tens of millions of students in more than 180 countries. These one-hour tutorials are available in more than 45 languages and include new activities, such as the tutorial that features Disney's Moana.

RUSMP invited Cisneros to participate in an Hour of Code at a school in her district. When she was a schoolteacher, Cisneros participated in the Summer Campus Program, one of RUSMP's







**COMPUTER COMFORT:** RUSMP staff members, council member Cisneros and students celebrate the wonders of computer science.

flagship programs. A former HISD trustee, Cisneros is a passionate supporter of public education, including computer science education. She hosted three TechConnect Fairs over the summer that introduced children to coding. TechConnect Fairs strives to connect children who have limited access to technological resources at home with all the resources that are available for free at public libraries.

During the event, Cisneros spoke to students and shared, "In a similar way that knowing how to speak Spanish can help you be successful in a job or career, familiarity with coding and being comfortable with technology opens a whole world of employment opportunities, too."

ALICE FISHER

Director of Technology Applications and Integration
RUSMP

# A New Way to Think About Water Issues

Water is essential for life. Yet millions of people around the world do not have access to clean, affordable water.

Solving this problem is the motivation behind the Center for Nanotechnology-Enabled Water Treatment (NEWT) Systems, which is directed by Pedro Alvarez, professor of environmental engineering at Rice University and is funded by the National Science

As part of its mission, NEWT is developing a workforce to create and implement solutions to grand challenges, such as global water scarcity. NEWT, in partnership with the Rice Office of STEM Engagement (R-STEM), has launched a graduate-level engineering course for K-12 teachers that will empower educators to bring critical thinking about water issues into their classrooms and cultivate a new generation of engineers.



WATER WORLD: Houston teachers learn about environmental issues affecting the scarcity of clean water.

Thanks to a National Science Foundation grant, the three-hour evening course, NanoEnvironmental Engineering for Teachers (NEET), is offered at Rice free of charge to 25 science, technology, engineering and math teachers from schools across the Greater Houston area.

Led by Christina Crawford, assistant director in R-STEM, the NEET course provides teachers the opportunity to learn about environmental issues affecting water sustainability and to engage in hands-on projects that use engineering technologies.

The overarching goal of NEET is for teachers to understand how project-based learning activities should look and feel in the science classroom. This course gives teachers the confidence to develop and implement activities that will engage their students in STEM fields and environmental engineering. In this course, teachers are also learning about cutting-edge technologies from NEWT research scientists at the four partner institutions: Yale, Rice, University of Texas at El Paso and Arizona State University.

Because the issues of safe-drinking water are complex and compelling, this course provides teachers with resources to help students see the life relevance of STEM courses and to see how STEM careers can help improve the lives of others.

#### CAROLYN NICHOL

Director, Rice Office of STEM Engagement Education Director, NSF NanoEnabled Water Treatment (NEWT) Center Faculty Fellow in Chemistry

# **Rice Gallery Inspires Art**

When Christine Medina, former manager of Rice Gallery, received a call from an art teacher in Arlington, Va., in November, she was thrilled to hear students as young as fifth grade were studying installation art.

"I was especially excited to get the call and hear how much Rice Gallery had influenced a group of kids across the country," Medina said. "Virtual outreach is a huge priority of ours because the downside of installation art is that only so many people can come here to experience it in person."

Through their classwork, students at Glebe Elementary discovered Rice Gallery and created art pieces that were inspired by installations presented at the gallery. Before gearing up for their next installation, the students wanted to interview Medina via Skype to learn more about installation art curation.

Facing a screen of about 50 enthusiastic fifth graders, Medina answered a spectrum of questions, ranging from curator logistics, such as how Rice Gallery finds and selects artists, to broader genre themes, such as why she thinks installation art is so important.

"The majority of the time, people consider a narrow definition of artwork and picture a painting or a sculpture," Medina said. "It's cool for kids to see that art can be a whole room filled with office space. It broadens their definition of art."

Installation art, or the artistic genre of 3-D works, is designed to transform the perception of a space. Students selected four more installations that were presented at the Rice Gallery to study and draw inspiration from: Thorsten Brinkmann's "The Great Cape Rinderhorn," Andrea Dezsö's "Sometimes In My Dreams I Fly," Mark Fox's "Dust" and Charlie Robert's "Mambo Jambo."

"Installation art is really fun to make because you don't just sit down and draw anything — you actually build something," said Owen, a Glebe Elementary student.

The current and final Rice Gallery installation, Sol LeWitt's "Glossy and Flat Black Squares," opened in February and is on view through May 14. Future installation art exhibits will be displayed in Rice's newly opened Moody Center for the Arts.

#### KENDALL SCHOEMANN

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