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HIGHLIGHTS

NTU, USC Form Strategic Partnership

Azalea Festival Becomes Taipei
City Event

English Program Helps
Students Develop Global Skills

Camps to Promote Plant
Knowledge



Ming-Liang Hsieh: Art Historian



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臺灣大學



Luisa Shu-Ying Chang

VICE PRESIDENT FOR INTERNATIONAL AFFAIRS

Universities in Taiwan have experienced the acute necessity of internationalization in higher education. The driving forces behind such phenomena are the competition in global human resources markets and the need for countermeasures of an aging society. We also consider the urging need for communication between diverse societies and cultures, as well as the unique political situation of Taiwan, and the spirit of academic cooperation when planning campus internationalization. NTU, as the thought leader of Taiwan's academic institutions, also shoulders the responsibility to serve as a benchmark of innovative strategies for campus internationalization.

As early as 2010, NTU announced one of its adventurous strategy for internationalization: having one-third of all undergraduates engage in overseas study by 2014. NTU, with about 4,000 freshmen per year, would achieve the initial milestone by sending 1,300 students abroad each year. Now, we have surpassed the initial goal by creating various models for student mobility program, such as student exchange programs, internships, short-term and summer abroad programs. These student mobility programs are abundant in quantity, and are carefully design with high quality program contents.

"Today is about a mobile campus; tomorrow will be about a mobile career." International mobility of talents is the key trend of the world. While studying, the experience of overseas study would enable students to strengthen their intellects, to expand their cultural awareness, and to develop independence and autonomy. Nonetheless, it is crucial for students to plan and to consider ways to transform their campus international experiences to career-related positive factors. While studying abroad, students should continue to deepen academic knowledge with critical thinking, as well as cultivate their interpersonal and other soft skills in order to prepare for mobility in their future careers.

In addition to outbound mobility, NTU has also taken active measures by making use of its international academic reputation to attract international students to campus and proactively establish bilateral connections. The 5,000 international students seen walking and biking in every corner of NTU campuses also enrich the on-campus internationalization. On the one hand, building a large international student body enables students who have not traveled overseas to experience intercultural stimulation on-campus. NTU professors also experience opportunities to take on the challenges of developing new approaches to teaching. On the other hand, the university hopes that international students will establish deep friendships and connections to Taiwan, and go on to spread the impacts and networking links. By doing so, all students in NTU are NTU students, and NTU students will spread the good words about our wonderful campus, hence enhancing NTU's global visibility and reputation.

Other major goals for the Office of International Affairs will include creating internship opportunities for international students, pursuing strategic partnerships with prestigious international universities, and bringing uniformity and high-quality design to NTU global branding materials. Although NTU ranks first in Taiwan, we have to know that the world is big, so when considering factors for campus internationalization, e.g. study abroad, we encourage all students to live out the experiential education and become independent thinkers.



Interview with Art Historian, Distinguished Prof. Ming-Liang Hsieh

"I had never considered becoming a scholar. I just simply liked ceramics. It was only later that I discovered this could be an academic endeavor."



Now a respected scholar who researches the history of Chinese ceramics at the Graduate Institute of Art History, Distinguished Prof. Ming-Liang Hsieh received the Ministry of Education's National Chair Professor Award at the end of 2016. Earning this prestigious honor for the second time, Prof. Hsieh has joined the select group of scholars who have been recognized with the title Lifetime Honorary National Chair Professor. Prof. Hsieh specializes in using ceramics as material evidence in order to gain deeper insight into the development of cultural exchanges in Asia over the course of history.

Anyone who enjoys even a brief conversation with Prof. Hsieh would say he is a research scholar to be sure, but perhaps "ceramics geek" would be a more fitting description.

Displaying an interest in collecting things from an early age, Hsieh built stamp and match box collections as a child. Nowadays he enjoys collecting eating utensils and ornaments. This special interest in collecting becomes evident as one enters Hsieh's NTU research laboratory. Books are stacked to the ceiling on shelves lining the walls of the small room, while a variety of curios lie scattered among the piles of books. Besides the ceramic vases, wood carvings, and

lacquer ware he has gathered, Hsieh has kept the room's original sink and faucet that date from the period when NTU was Taihoku Imperial University, fixtures many other professors chose to have removed and discarded. "They may be old, but they have real flavor," Hsieh says with a laugh.

Hsieh's passion for antiques and habit of collecting may lie at the root of his career as a ceramics expert. When asked to recall his earliest fateful encounter with ceramics, he says he would need to start from his childhood. Beginning when he was an elementary school student, Hsieh liked to spend time roaming the

streets and collecting pieces of old tiling. As it was an era of economic growth for Taiwan, many buildings were being renovated. "At home, I used a box to make a small house and I stuck the tiles I had picked up on its outside," says a smiling Hsieh. He collected so many tiles that he ended up developing the ability to distinguish different brands of tiles.

Prof. Hsieh's academic contributions lie in his integration of the history of ceramics with cultural history, which has opened new areas of ceramics research. He believes that ceramics are a type of material that explains history. While he started out by observing ceramics out of pure interest, he now seeks to utilize his deep knowledge of ceramics in an attempt to provide new explanations



of cultural history.

The story of a set of pottery figurines excavated from a Han dynasty gravesite in the city of Jiyuan in northwestern Henan Province, China, highlights Prof. Hsieh's unique research contributions. Among the figures was one with two tube-like objects extending below its mouth. None of the scholars in China could determine what the objects were, and some even surmised that the figure



of the interactions that occurred between Chinese and Western cultures long ago.

depicted a person eating sugarcane. Hsieh discovered that the tubes represented an aulos, a two-tubed wind instrument popular in ancient Greece. While Chinese scholars possibly lack familiarity with Greco Roman material culture, scholars in Europe for their part tend to pay little attention to China's reports on archaeological excavations. As luck would have it, Prof. Hsieh possessed a background in both areas of study.

"Discovery does not signify a relationship. My job is simply to use more data and evidence in order to recreate the process of this period of exchanges between the cultures of China and the West," says Hsieh. As for the Han dynasty figurines, Prof. Hsieh ultimately found that they indeed portrayed Western musicians who had traveled to China to perform, providing further evidence





Interview with Distinguished Prof. Ming-Liang Hsieh

From high school until graduate school, you acquired your knowledge of ceramics completely through self-study. Has your experience with self-study had any impact on your research?



Although I didn't have a teacher teach me about ceramics, I believe the definition of teacher can be expanded. Reading academic papers across a variety of fields, I was able to identify which materials each author had used to arrive at his or her findings. In articles about bronze vessels, paintings, and ancient craftsmanship, I was able to observe how they performed their

research. My teachers all dwell within these intangibles.

Ceramics has been the lifelong focus of your research. Do ceramics hold any special meaning for you?

Ceramics is simply a type of material for me. I'm actually interested in culture, history, and archaeology. Nonetheless, ceramics is my area of specialization. I know how to appreciate it, so I use my professional knowledge of ceramics to provide details. If I were to write pure cultural history, I would not match the professional knowledge of others.

Are you a collector of ceramics in your personal life?



I collect, but I don't have the money to buy the really good stuff. I like to buy eating utensils, all sorts of cups, bowls, and plates. I also appreciate lacquer ware and glass. My glasses, beer glasses, and whiskey glasses are very nice. My family eats common fare, but our table is set tastefully with the utensils I love.

Do you have any interesting field study experiences?

I've done quite well collecting books and I have a lot of photocopied materials. However, there have been many times when I was writing articles that I didn't even need to leave my lab because I had all of the articles and books I needed for reference. There are only three things I do when I travel overseas: I like to visit museums and I like to peruse bookstores, and the other thing I like is to go to Japanese izakaya taverns for a drink.

What are your thoughts on becoming a Lifetime Honorary National Chair Professor?

I'm delighted. It's important to have an undeserved reputation, and it just so happens that this reputation comes with a few benefits. Still, it's all just emptiness in the end. While in Japan last year, I chanced upon a book by the scholar of East Asian history I most revere: Jitsuzo Kuwabara. He penned just one five-book series over the course of his life. I bought the third volume, which turned out to cost only 150 yen. My heart went cold contemplating how a scholar's lifetime of blood, sweat, and tears could cost less than a comic book.

Profile

- Prof. Ming-Liang Hsieh, Graduate Institute of Art History
- PhD, Aesthetics and Art History, Seijo University, Japan, 1992
- Assistant Research Fellow, National Palace Museum, 1985-1991
- Associate Professor, 1992-1997; Professor, 1997-present; three-year Distinguished Professor, 2008-2011, Graduate Institute of Art History, National Taiwan University
- Visiting Professor, Heidelberg University, Germany, 2002
- Visiting Professor, Free University of Berlin, Germany, 2012
- Director, Graduate Institute of Art History, National Taiwan University, 2003-2009
- Lifetime Distinguished Professor, Graduate Institute of Art History, National Taiwan University, 2009-present
- NTU Chair Professor, National Taiwan University, 2014-present

Prof. Hsieh is a renowned expert on the history of Chinese ceramics and he has been recognized with numerous awards, including the Ministry of Science and Technology's Class-B Research Award (1987-1991), Class-A Research Award (1993-1999), and Outstanding Research Award (2000-2001, 2012-2015).

Prof. Hsieh's award-winning books include:

- Trade Ceramics and Cultural History, NTU Outstanding Academic Book Award, 2006
- Collected Papers on the History of Chinese Ceramics, NTU Outstanding Academic Book Award, 2008
- Notes on Ceramics--Thoughts and Practices about History of Ceramics, NTU Outstanding Academic Book Award, 2009
- Notes on Ceramics 2--Cultural History of Chinese Ceramics--An Asian Perspective, NTU Outstanding Academic Book Award, 2013
- The World of Ancient Chinese Lead-Glazed Pottery, NTU Outstanding Academic Book Award, 2015
- Notes on Ceramics 3, NTU Outstanding Academic Book Award, 2016
- Collected Papers on the Six Dynasties Ceramics, NTU Distinguished Academic Book Award, 2007

Other honors:

- Dr. Hu Shih Memorial Chair, Academia Sinica, 2008
- 52nd Academic Award, Ministry of Education, 2008
- 17th National Chair Professor Award, Ministry of Education, 2013
- 20th National Chair Professor Award, Ministry of Education, 2016



DEPARTMENT MEETS GROWING DEMAND FOR PLANT PATHOLOGY AND MICROBIOLOGY EXPERTS

The need for plant health techniques and high standards for agricultural products and food safety has increased substantially since Taiwan joined the World Trade Organization in 2002. One of NTU's strengths in the study of agriculture lies in the field of plant pathology and microbiology. The Department of Plant Pathology and Microbiology is NTU's center of research and teaching related to all aspects of plant pathology, plant disease management, and basic and applied microbiology.

Research in plant pathology on our campus can be traced back to 1948, when Matsumoto Takashi was hired as the Chair Professor in Plant Pathology at the Department of Agriculture of Taihoku Imperial University (the predecessor of NTU). The Department of Plant Pathology and Microbiology was established in 2003 in response to Taiwan's growing demand for experts in not only plant pathology but also microbiology applications.

The department's faculty and research teams undertake a wide range of endeavors, from addressing the immediate agricultural problems of growers to investigating fundamental biological principles and conducting studies on both infectious and non-infectious plant diseases. In addition, the department collaborates with private enterprise and has achieved success in improving agricultural techniques and developing

microbial-derived drugs. Alumni from the department have made significant contributions to academia, government, and business.

The department is also devoted to sharing its knowledge with the general public. Every year, the department's undergraduate students hold summer camps for elementary school students. The schoolchildren learn about microbiology and plant diseases through interactive biology classes and activities, which include easy microscope projects focused on fungi, bacteria, and worms.

One-day camps for high school students are also held during the winter vacation. Students from all over Taiwan join the camps, excited to learn about research in plant pathology, microbiology, and plant health, and gain hands-on experience through basic microbiology experiments. Moreover, the department shares its mission and latest findings with prospective students and visitors from around the country at its Department Expo booth during the NTU Azalea Festival.

The department offers a range of courses on the biology of all microbes, including fungi, bacteria, viruses, nematodes, viroid, and phytoplasma. The courses emphasize knowledge and management of plant pathogens and the infectious plant diseases they cause, and investigate basic research questions related to host-pathogen interactions and microbial ecology. The department focuses research and teaching in five principal fields:

1. Plant pathology and plant medicine: Plant pathogens, pathogenic microbiology, disease cycles, vectors and disease transmission, pathology and non-infectious diseases, molecular breeding development
2. Basic microbial research: Microbiome, metabolism, genomics and proteomics, microbial morphology, molecular phylogeny, functional genomic analyses, population dynamics, signal transductions
3. Plant-microbial interaction: Mechanisms among pathogens and their hosts; plant immunity
4. Molecular detection and diagnostic assay development: Antibody and immunoassays, DNA/RNA assays, PCR, real-time PCR
5. Applied microbiology: Vector constructs development, biological control agents, fermentation applications, secondary metabolite analysis towards microbial drug development



▲ The opening ceremony of the annual NTU Azalea Festival marks the official beginning of the university's month-long spring festival.

CITY PARTICIPATION TAKES AZALEA FESTIVAL BEYOND THE CAMPUS

Inaugurated in 1997, the NTU Azalea Festival returned for its 20th season this spring, once again celebrating the NTU spirit with a diverse offering of fun and fascinating activities and events for the entire month of March. This year's festival was particularly special as the Taipei City Government organized its first Taipei Azalea Festival in coordination with the established NTU celebration.

By combining their efforts, NTU and the city government expanded the original university-focused event beyond the NTU campus, allowing more people to experience the vital energy of the city's blossoming azaleas and sparking a renaissance of the arts and culture in the southern part of the city near the NTU campus.

As NTU was a core facet of the Taipei Azalea Festival, a number of the city festival's events took place in coordination with the NTU Azalea Festival here on campus. These events included a concert, "Singing for Youth--An Encounter of Flowers and Music" in Luming Square. Also, the Horticultural Flower Exhibition Greenhouse was erected on campus and included as part of the "Tour of Breathtaking Azaleas" eco-tours and lectures. More importantly, the restoration of the Liu-Gong-Jun canal was made a main focus the two festivals, which created new ways of imagining the historic irrigation system by highlighting its relevance to ecology, conservation, research, lifestyle, and art.

One of the main events of the campus festival was the Department Expo, which took place on March 11 and 12. An important annual event that draws curious high school students accompanied by their family members from around the nation, the expo gives the university's departments an opportunity to apply their creativity and innovativeness in



▲ NTU President Pan-Chyr Yang accompanies Taipei City Mayor Ko Wen-je.

introducing their programs, faculties, and future development plans. The two-day event also offered a variety of exciting performances and activities that enabled visitors to experience NTU's vibrant campus life and see how students spend their time when not studying.

The Taipei Azalea Festival featured a month-long series of band performances, outdoor tours, music lectures, and a major concert, and provided special discounts for the Gongguan Shopping Area. The city's parallel events created an Azalea Festival that was enjoyed not just by the NTU community, but by the people of Taipei, as well.



▲ Mayor Ko Wen-je observes restoration work on the historic Liu-Gong-Jun canal.

Speaking during the joint opening ceremony, Taipei City Mayor Ko Wen-je said that the azaleas of the NTU campus were his most beautiful memory from his days as an NTU student. Calling the azalea Taipei's city flower, Mayor Ko expressed his hope that, nurtured by this coordination of azalea festivals by NTU and the Taipei city government, the beautiful azalea would develop into a symbolic image of the city. The mayor also expressed his deep gratitude to Prof. Fon-Jou Hsieh for suggesting and promoting the joint festivals.

NTU President Pan-Chyr Yang expressed his delight at being able to jointly organize the festivals with the city government, saying he looked forward to the events which would enhance the cultural atmosphere of the city.



A roundtable meeting at Ankara University

NATIONAL UNIVERSITY DELEGATION PROMOTES HIGHER EDUCATION EXCHANGES WITH TURKEY

Vice President for International Affairs Luisa Shu-Ying Chang led a six-member delegation representing three national universities to visit prestigious universities and higher education organizations in Turkey during January 15 to 21. The mission, which was initiated as a follow-up to a visit to NTU by Turkey's Council of Higher Education last year, aimed to give Taiwan a better understanding of the current state of higher education in Turkey, enhance Turkey's visibility in Taiwan, and promote international cooperation and academic exchanges between Taiwan and Turkey.

In addition to Vice President Chang, the members of the delegation included Prof. Shih-Yao Lai of the NTU Graduate Institute of Building and Planning, Vice Dean for International Affairs Fu-Ming Wang of National Taiwan University of Science and Technology, and Director for International Relations Division Yueh-Heng Li of National Cheng Kung University, as well as the NTU Office of International Affairs' Linda Chang, director of Global Alliances Section, and Carol Lin, manager of International Programs.

The delegation visited two higher education organizations and six universities, including the Higher Education System in Turkey and Presidency for Turks Abroad and Related Communities as well as Ankara University, Middle East Technical University, Hacettepe University, Koc University, Bogazici University, and Istanbul Technical University.

While in Turkey, Vice President Chang's delegation received enormous support and assistance from Representative Yser Tai-Hsiang Cheng and Director Harun Han-Ching Fan of the Taipei Economic and Cultural Mission in Ankara. Director Fan accompanied the delegation for the entirety of its five-day mission in Turkey. Moreover, the members of the delegation received a warm welcome from their Turkish hosts at each of their destinations.

During a meeting with President Pan-Chyr Yang at NTU in early 2016, the director of the Council of Higher Education, the organization in charge of higher education in Turkey, revealed that Turkey had initiated a project aimed at boosting the international rankings of its universities. The visit indicated that Turkey had targeted the Far East and Taiwan as important partners for cooperation in higher education.

This year's meetings in Turkey allowed the two sides to gain initial understandings of each other's higher education systems and existing programs and to discuss areas of potential cooperation and models for cooperation.

The Turkish side proposed academic exchanges as a potential form of cooperation. The Taiwanese delegation suggested such approaches as planning bilateral symposiums, workshops, and short-term faculty exchanges, encouraging Turkish students to study in Taiwan, and increasing the participation of Turkish institutions of higher education in activities in Taiwan.

LARGE USC DELEGATION VISITS CAMPUS TO SIGN STRATEGIC PARTNERSHIP AGREEMENT

The members of the largest University of Southern California delegation to visit Asia in two decades met with their counterparts here at NTU as part of a week-long outreach and partnership-seeking mission to Taiwan in mid-February. On February 21, the delegation, led by USC President C. L. Max Nikias and including members of the USC Board of Trustees, senior administrators, and the deans of many USC colleges, spent the final day of its week in Taiwan on the NTU campus.

Reflecting the strong partnership shared between our two institutions as well as our common determination to join in creating a strategic platform for international cooperation, NTU was selected as the sole university to be visited by the USC delegation during its stay in Taiwan. At NTU, the visitors toured campus facilities, held meetings with their administrative and academic counterparts, and signed a strategic partnership agreement. The last official visit by a president of USC to Asia occurred in 1997.

NTU President Pan-Chyr Yang and President Nikias both expressed high confidence that the new strategic partnership agreement would serve to further strengthen cooperation in areas of common interest to the two institutions, particularly in creativity and entrepreneurship, biomedical technology, joint academic paper submissions, remote learning programs, research and internship programs, and dual-degree programs.

Since the establishment of a student exchange program between the College of Management and USC in 1994, NTU and USC have enjoyed a long and fruitful relationship and pursued increasingly closer ties. Other NTU colleges that have signed bilateral cooperation agreements with USC include the



▲ The members of the largest University of Southern California delegation to visit Asia in two decades pose for a photo with the Fu Bell.

College of Medicine, College of Engineering, College of Public Health, and College of Electrical Engineering and Computer Science.

In addition, NTU partnered with USC and China's Peking University in designing their first interactive lecture hall program in 2010. Using a remote learning approach, the program permits students to transcend cross-cultural obstacles in order to engage effectively in exchanges and study with students at prestigious universities. Meanwhile, since 2013, the Office of International Affairs has welcomed a total of 13 USC students selected through USC's Global Fellows Internship Program to work as summer interns. And, in another area in which the two institutions share ties, 27 full-time NTU faculty members are USC alumni.

Taiwan ranks as the fourth largest source of international students at USC. Among the Californian university's eight overseas offices, six are located in Asia. USC opened its office in Taipei in 1998.

While in Taiwan, the USC officials met with Taiwanese Vice President Chien-Jen Chen and signed an agreement for Taiwan and USC to jointly provide an annual US\$70,000 scholarships for postdoctoral research fellowships. A joint scholarship for PhD students offered by the Ministry of Education and USC has already reached the fifth year of its second term.

AGRICULTURE COLLEGE ENJOYS GROWING PARTNERSHIPS WITH ELITE JAPANESE UNIVERSITIES

Fostering close partnerships with prestigious institutions of higher education around the globe is a major thrust of NTU's campaign to promote internationalization. The College of Bioresources and Agriculture plays an active role in pursuing international partnerships and cooperates with universities around the world on agricultural education and research.

During the last few years, the college has enjoyed increasingly frequent and close contacts with three elite Japanese universities: Kyoto University (KU), University of Tokyo (UTokyo), and University of Tsukuba (UT). Communication and exchanges between the CBA and the Japanese universities have been flowing at an accelerating rate due to the growing number and variety of cooperation programs on offer.

Students and faculty members of the universities have become busier and more engaged than ever before, working together on a wide range of cooperative activities. Interaction among the universities ranges from mini-symposiums, international meetings at the university level, and campus-in-campus course programs, to student exchange programs, short-term research and internship programs, and international summer programs.

The CBA has introduced its students to Japanese perspectives by inviting faculty members of KU to teach agricultural courses and designing distance courses with UT and KU. Students of the partner universities



▲ Summer program students plant rice seedlings.

can also take advantage of dual-degree Master's programs, and the CBA recently signed an agreement for a dual-degree PhD program with UT.

These activities demonstrate the strength of the mutually-beneficial relationships between the universities. Students and faculty members benefit from each other by sharing not only research and educational resources, but ideas and new knowledge, as well. By working together, they experience growth academically as well as in their personal lives. Furthermore, these close contacts create ever more possibilities for interdisciplinary research cooperation.

Lectures given by UT professors at the CBA provide a good example of the benefits of international cooperation. The lectures inform the students about current developments in agricultural technology from a Japanese perspective while enjoying the opportunity to communicate with the UT lecturers while in class. Indeed, the lectures often motivate the CBA students to reconsider their futures and even consider undertaking further study overseas. Similar experiences are also offered to CBA students by the student exchange programs, dual-degree programs, short-term internships, and international summer programs.

Nowadays, the CBA must keep pace with a rapidly-changing modern world that is becoming ever more globalized. The college's partnerships with these Japanese universities have created a broad platform with a wide variety of academic activities and programs for our students and faculty members to choose from.

The CBA hopes to develop and carefully maintain long-lasting relationships with these partner institutions. Such international cooperation not only brings advantages to students and researchers and to the university, but it even enhances our nation-to-nation relations.



▼ NTU President Pan-Chyr Yang and Vice President for Student Affairs Tsung-Fu Chen participate in the opening ceremony of Global Initiatives Symposium in Taiwan.



Students Travel Abroad to Promote Student-organized International Conference

student delegates from all over the globe and 50 speakers from Taiwan and abroad to discuss the latest global trends.



▲ Participants pose for a group photo following the closing ceremony.

Global Initiatives Symposium in Taiwan is an annual international academic conference organized by students in Taiwan for students from around the world. Taking place for five days every July, GIS Taiwan brings together more than one hundred

In 2016, GIS Taiwan succeeded in drawing the participation of 154 students from Taiwan and other countries around the world. The conference enjoyed the great honor of featuring as its opening speaker the Afghan politician and women's rights activist Fawzia Koofi who discussed how she, as a woman in the Islamic cultural world, strives to improve the social, political, and economic environment of Afghanistan.

During the academic presentations, which addressed the four themes of Influential Women, Social Enterprise, Emerging Agricultural Practices, and Global Disease Control, 16 renowned scholars from Taiwan and abroad shared their insights and interacted with the student delegates. Accenting the conference's main theme, "Redefine the Limitations, Create Unlimited Possibilities," the Polish painter Mariusz Kedzierski who was born without arms shared his creative experiences as the speaker for the closing ceremony.

On the technology front, the conference invited representatives of technology companies working in the areas of augmented reality, the Internet of Things, data mining, and virtual reality to introduce their products in order to stimulate discussions with the delegates on recent trends in the world of technology.

International Corner

The conference also offered non-academic activities, including cultural activities and a dinner banquet, that provided opportunities for the local and international student delegates to get to know each other in informal settings and create lasting memories together.

The Office of Student Affairs and Office of International Affairs have expanded their efforts to promote GIS Taiwan abroad and attract more international students to the conference. In February, a delegation of NTU students traveled to Malaysia to hold recruitment sessions at prestigious Taylor's University and Sunway University. Due to their promotional efforts and the support of the student associations of the two universities, the NTU delegation met with nearly 50 local students during the sessions. Moreover, more than 500 more people have viewed live broadcasts of the sessions over the Internet.

In early March, another NTU student delegation flew to Germany to participate in the five-day World Business Dialogue at the University of Cologne. The event, which attracted over 400 elite students from around the world, is like GIS Taiwan, an annual student-organized international conference. While attending the conference, the NTU students extended invitations to the other participating students to come to Taiwan for GIS Taiwan.



The 9th GIS Taiwan will be held this summer, with the theme "Rise to Prominence," during July 3 to 7. This year's conference will focus on low-carbon economy, extremism, new media, and blockchain, and is expected to draw 300 local and international delegate students.

◀ International student delegates take part in a calligraphy activity.

▼ The closing speech of Global Initiatives Symposium in Taiwan.





ANCESTRAL SPIRITS OF NATIONAL TREASURE WELCOMED HOME BY PAIWAN VILLAGE

An official delegation of more than one hundred Paiwan people from an indigenous village in Pingtung County visited campus wearing traditional attire on October 15, 2016 in order to hold two traditional ceremonies for a Paiwan two-sided carved stone pillar that has been designated a national treasure.

The ceremonies took place in front of the NTU Museum of Anthropology, where the pillar has been housed since the period of Japanese rule in Taiwan, and were attended by Minister of Culture Li-chun Cheng, NTU Vice President for Academic Affairs Hung-Chi Kuo, and faculty members of the College of Liberal Arts.

Led by the village chief, the ceremonies included a traditional *masasan siruveŋje* bonding ceremony and a spirit welcoming ceremony meant to lead the ancestral spirits of the pillar back to their homeland.

The ancestral pillar belonged originally to a Paiwan chieftain's family by the name of Tjaluvuan that had lived in Aluvuan Village in Pingtung County. In 1929, the predecessor of the Department of Anthropology, the Local Ethnology Laboratory of Taihoku Imperial University, collected the pillar from the by-then abandoned village.

At the time, Nenzo Utsurikawa, the founder of the Local Ethnology Laboratory, gained the permission of a female chieftain of the Tjaluvuan family named Djupelan as well as the Japanese imperial government



before removing the pillar from the old village for archiving at the university. After that, the people of Aluvuan were to never see their ancestral pillar again and it gradually faded into a lost memory.

Decades later, in preparation for applying to have the cultural relic officially recognized as a national treasure, scholars at the NTU Museum of Anthropology dedicated great time and effort to finding out more about its past. Clues left behind from 1929 enabled the anthropologists to track down the few Paiwan elders who knew of the Tjaluvuan family name and the story of Aluvuan. The scholars also accompanied members of Vungalid Settlement, the village to which the people of Aluvuan relocated, in journeying to the original site of the village.

The museum organized numerous discussion meetings with the Aluvuan people so as to understand their agreement to apply for national treasure status for the pillar as well as their desire to welcome the ancestors enshrined in the pillar back home to their village. The two sides decided that a homecoming ceremony would be held and the villagers would take home a replica of the pillar, while the original stone pillar remained with the museum for preservation.

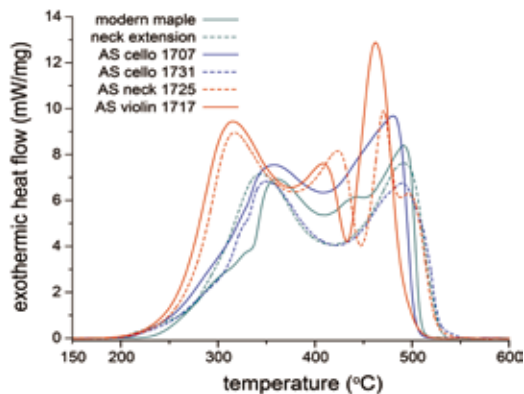
After the village welcomed the pillar home, they erected it at a festival plaza that was constructed out of building stones from the original Aluvuan village. Following the construction of the new plaza, the head chief decided to recommence the traditional Five Year Festival, which had not been held since it was banned by the Japanese imperial government.

Research Achievements



▲ 1709 Strad Marie Hall-Viotti, back

Stradivari Maple Found to be Chemically Different from Modern Maple



▲ Differential scanning calorimetry results for maples from Stradivari violins and cellos.

A study conducted by a team of NTU chemists hoping to elucidate the secret behind the beautiful tones produced by Stradivari violins was covered by over 100 international media outlets, including the New York Times, Washington Post, The Times of London, and Yomiuri Shimbun, following its publication in the *Proceedings of the National Academy of Sciences* in December. In the study, Prof. Hwan-Ching Tai, Prof. Jerry Chun-Chung Chen, and Prof. Hao-Ming Chen analyzed the chemical compositions of wood shavings removed from Stradivari violins, demonstrating that the treasured violins' maple wood possesses very different chemical properties compared to modern violin maple.

Previously, many experts regarded Antonio Stradivari's lost varnish recipe as his greatest secret. After decades of scientific analysis of the renowned

luthier's varnish composition, there is little evidence to suggest that his varnish might have introduced extraordinary acoustical properties. As an internationally recognized expert on Stradivari's varnish, Prof. Tai has noticed that fewer and fewer violin makers now regard the varnish as the key to Stradivari's tone. He believes that we should instead investigate the chemical properties of the wood.

Prof. Tai acquired maple specimens from four Stradivari instruments and one Guarneri. Nuclear magnetic resonance revealed that all of the historical maples exhibited hemicellulose degradation of around one-third over 300 years. Hemicellulose is the most hygroscopic component, and its degradation leads to reduced moisture absorption and reduced internal damping, allowing the wood to vibrate more freely.

Elemental analyses showed that Stradivari's Cremonese maple also appeared to have been infused with salts of sodium, potassium, and calcium. Alum, borax, zinc sulfate, and copper sulfate also appeared to have been added. The combination of these minerals probably served the purpose of "salt seasoning," providing biocidal protection against fungi and worms, and may have promoted the crosslinking of wood fibers. Such mineral treatments were unknown to European violin makers and absent in antique violins from other regions or countries.

Moreover, maples from Stradivari violins and cellos showed marked differences in their molecular structures. As the wood was gradually heated to 600 degrees Celsius, there was an extra peak in the heat-releasing curve of the violin maples that was absent in the cello maples and natural maple. The extra peak suggested reduced molecular adhesion between cellulose and lignin in the wood, likely caused by the high-frequency vibrations of violin playing.

Hence, the chemical distinctions between Stradivari's maple (in its current state) compared to modern maple can be attributed to three factors: initial chemical treatment, age-dependent chemical decomposition, and molecular rearrangement due to long-term vibration. Prof. Tai's findings may help explain why it has been so difficult to reproduce the acoustic properties of Stradivari violins using new wood materials.

However, current studies have only examined the maple in the back plate; the spruce in the front plate has not been investigated, and the front plate is supposedly even more important for violin acoustics. Prof. Tai and his team have begun to analyze Stradivari's spruce samples, hoping to uncover more secrets hidden within these unique cultural treasures.



▲ 1725 Strad Brancaccio, neck

Safety Division Seeks Interaction through Bicycle Safety and Anti-drug Campaign

The organizers led a march around campus with raised banners advocating bicycle riding safety, parking by the rules, one rider per bike, walking bikes in pedestrian-only zones, and a drug-free campus. They also designed a small interactive game and questionnaire for the promotion of drug awareness and the Echinacea Campaign. Students who completed the game or filled out a questionnaire received a useful, attractively-designed anti-drug promotional product as a reward.

Bicycle Safety and Maintenance Week was held during March 13 to 17. For the five days of the event, students and faculty members of the Department of Mechanical Engineering offered a free bicycle checkup



▲ Students of the Department of Mechanical Engineering provide free bicycle checkup and maintenance service.

The Student Safety Division of the Office of Student Affairs took advantage of the large number of people on campus for the NTU Azalea Festival to hold two events aimed at promoting the health and safety of the NTU community.

The 2017 Student Transportation Safety and Drug Awareness Campaign, which was held on March 11-12, the same days as the Department Expo, sought to promote awareness and positive attitudes regarding nighttime bicycle riding safety, rules for designated bicycle parking, and building a drug-free campus. The Taipei City Government Drug Abuse Prevention Center accepted an invitation to visit the campus during the event in order to promote the government's anti-drug Echinacea Campaign. The SSD also hoped the event would provide an opportunity for positive interactions with students.



▲ The city government promoted its anti-drug Echinacea Campaign as part of the university's Drug Awareness Campaign during the Azalea Festival.

and maintenance service and promoted the importance of bicycle safety. The students emphasized the concept that, just like the human body, a bicycle must receive regular checkups, be kept in proper working order, and be ridden safely.

The maintenance services offered included adjusting tire pressure, oiling chains, making minor adjustments, and offering free brake pad and cable replacement as well as for-charge pedal, kickstand, and seat replacement.

Teaching and Learning



- ◀ Dr. George Hallenbeck and students
- ▼ The Global Leadership for Tomorrow program



Students Develop Global Leadership Skills in English-only Program

The Career Center invited three world-class leaders of business management to present lectures under the Global Leadership for Tomorrow program during the fall semester of 2016. The program helped students develop their understanding of leadership, cultivate international relationships, and enhance their interdisciplinary thinking and communication skills. During the program, which was held in three sessions and conducted entirely in English, 35 students honed their English speaking and listening proficiency while attending the lectures, holding classroom group discussions, and engaging in after-class exchanges.

The program's lecturers included Dr. George Hallenbeck, Group Director of Global Product Development at the Center for Creative Leadership; Clare Forrester, Group Learning and Development Director, Asia of A.S. Watson Group; and Peter Hatti, Site Leader of the Hsinchu factory of Pfizer Biotech Corp. (Taiwan).

Below, three students share their impressions of the program.

Yun-Ju Chen, Graduate Institute of Microbiology

I really learned a lot from the experts in every field. I especially appreciated the warm advice of Ms. Liu, who kept reminding us to be open-minded.

The speakers in the three sessions were different in their styles. Dr. Hallenbeck and Ms. Forrester were professional lecturers who encouraged people to get involved in class. They prepared activities and questions for everyone to answer.

Kuan-Ju Chen, Department of Foreign Languages and Literatures

I really enjoyed the time during the program. I have attended this kind of program before. Therefore, I already had some questions prepared before the class. I thought my questions might be beneficial or worthy of consideration for other students, as well.

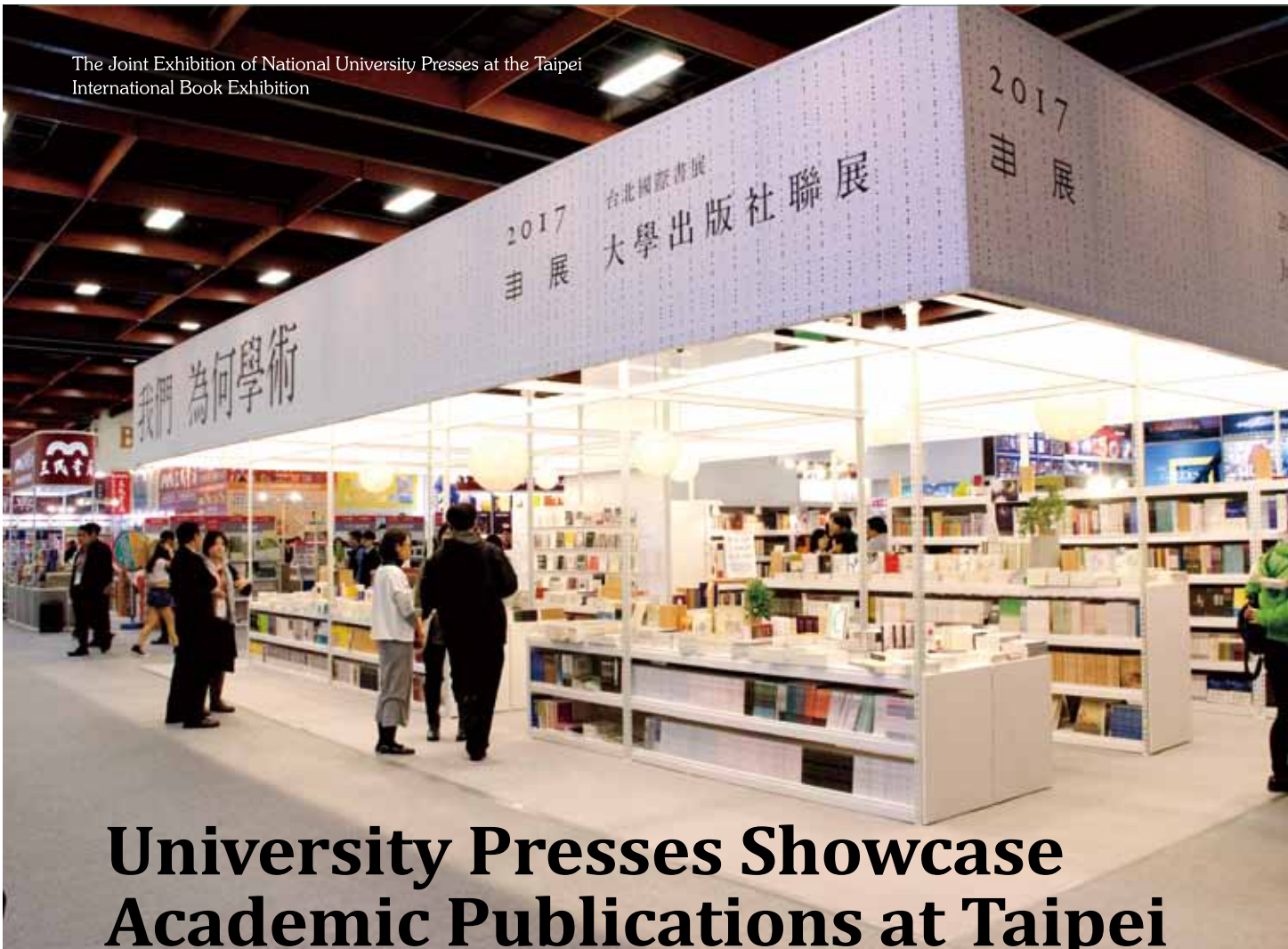
This program has got off to a great start; if it continues to be developed and improved, it will be one of the unique and wonderful programs held at NTU, especially for those who aim to be influential in society. (Personally, I want to be a diplomat. Perhaps that's the reason I wanted to take part in the program and learn from the speakers.)

Sebastian Berndt, Graduate Institute of Photonics and Optoelectronics

The speakers not only shared their expert knowledge, they encouraged the students to interact with each other and ask questions. There were students from many different fields and backgrounds. The interactions were quite close to what you might experience in a multinational company. This program can help you to develop a "global mindset" as well as respect and tolerance for other cultures, as these traits are much needed in our modern working environment.

I learned to care more about my reputation and how to develop my personal brand. We learned about self-reflection, so knowing "who you are" and "where you want to go" is not only important for your career, it can also be helpful in your private life.

The Joint Exhibition of National University Presses at the Taipei International Book Exhibition



University Presses Showcase Academic Publications at Taipei Book Fair

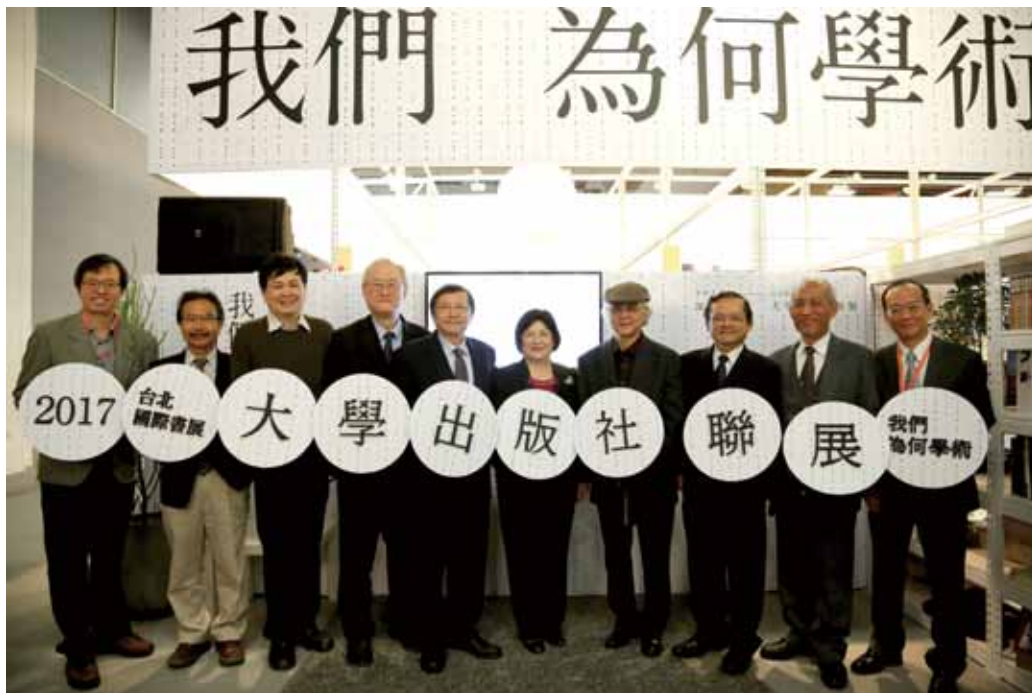


NTU Press once again teamed up with an alliance of university publishing houses to hold the Joint Exhibition of National University Presses for the six days of the Taipei International Book Exhibition during February 8 to 12. Returning in an expanded fifth annual incarnation, the joint exhibition posed the question "Why Are We Academic?" as its theme this year, seeking to reconsider the essence and spirit of scholarship as well as discuss approaches capable

of highlighting the significance of academic research findings and giving them a vital role in providing solutions to the issues impacting society.

Returning for the joint exhibition's opening ceremony, NTU President Pan-Chyr Yang said he had yet to miss the opening ceremony and that he has always maintained confidence and hope in Taiwan's academic publishers. President Yang noted that, since Taiwan publishes academic material using traditional Chinese characters, it enjoys an ease of convergence with the traditional culture of the more than 5,000 years of Chinese civilization, adding that, although simplified characters are the main form of written Chinese internationally, traditional characters remain irreplaceably important.

Teaching and Learning



▲ Guests pose for a photo during the opening ceremony the Joint Exhibition of National University Presses at the Taipei International Book

President Yang also suggested that the university publishers consider studying the model used overseas in which a number of university publishers form an alliance for the establishment of one publisher that integrates the area specializations of each institution, noting that this approach would help boost international visibility.

The organizers expanded the scope of the exhibition to include an overseas publisher for the first time this year, with the Association of Japanese University Presses accepting an invitation present the cream of its academic publications. The Japanese publications were displayed as an "exhibition within an exhibition" alongside the Taiwanese publications, which allowed readers to observe the styles of professional academic publishers in each country.

Each year during TIBE, the university publishers' exhibition stands out as one of the few booth areas to showcase primarily academic publications. This year, the publishing houses of ten domestic universities brought their strengths to the exhibition, including, in addition to NTU, Sun Yat-sen University, National Central

University, National Chung Hsing University, National Chiao Tung University, National Cheng Kung University, National Chengchi University, National Tsing Hua University, Taipei National University of the Arts, and National Taiwan Normal University. Together, the university publishers presented readers with thousands of books and other publications covering a wide range of topics, including literature, history, philosophy, natural sciences, and art.

Taking advantage of TIBE's evening hours, the university presses scheduled some of the lectures held in conjunction with the exhibition to be held between 6:00 and 9:00 pm, to give busy working people the opportunity to attend the talks. Moreover, in coordination TIBE's offer of free admission to students up to the senior year of high school, the publishers expanded their student discount for on-site purchases, offering a 21% discount on an unlimited number of books to anyone presenting a student or employee ID card for a domestic school at any level.



NTU Milk Cow Earns High Production Award

A supercow at the NTU Experimental Farm was awarded the Council of Agriculture's Prolific Ten Tons Cow Award this year for producing a total of 11,045 kilograms of milk during 2016.

Besides exceeding an annual production volume of ten tons, which averages out to thirty 960cc bottles of fresh, delicious NTU Milk per day, a Prolific Ten Tons Cow is required to have a high reproduction rate. The award's high criteria are considered especially difficult to meet under the high temperatures and humidity of Taiwan's subtropical climate, as Holstein dairy cows are suited to temperate climates.

While the cow did most of the work, the farm's first Prolific Ten Tons Cow Award was also the outcome of improvements carried out by the dairy farmers at the Animal Husbandry Section during the last three years. Besides setting up clear management directions, protocols, and goals, the section also began importing high-quality feed and upgraded its facilities and techniques, which improved the milk cows' quality of life. These and other improvements at the farm resulted in a 230% increase in daily milk production in just three years.



內付
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