Concert Band to Play at Carnegie Hall

A group of people at the California Institute of Technology will be going where no Caltech group has gone before, Carnegie Hall. On Saturday, May 24, approximately 60 performers in the Caltech-Occidental Concert Band will travel to New York City to play at the renowned concert hall.

“We are extremely excited about this," says senior physics major and clarinetist Lauren Porter, who has been integral in organizing the trip. “It's a huge opportunity for us. Everything we play will be the culmination of a lot of hard work."

William Bing, director of bands, has been working at Caltech for nearly 35 years. In addition to his work at the Institute, he is a professional trumpet player who has played at such venues as Lincoln Center, the Kennedy Center, and Disney Concert Hall, but this will be his first time performing at Carnegie Hall.

Featured in the Carnegie Hall concert will be Caltech alumna and vocal soloist Kjerstin Williams (BS '00, MS '02, PhD '06). She has been a member of the Caltech jazz and concert bands since her freshman year as a trombonist, but singing brings her an indescribable thrill. "To sing with a wall of music behind you, there's nothing quite like it. Karaoke doesn't even begin to touch it. I'm hoping word gets out to our alumni and friends on the East Coast so the Caltech community can share in the experience," notes Williams.

Caltech president Jean-Lou Chameau says, "I'm excited that the musical talent of Caltech students will be discovered by a Carnegie Hall audience. They'll have the chance to experience first-hand the wonderful connection between science and music."

To read the entire article, please go to http://mr.caltech.edu/media/Press_Releases/PR13108.html.

JPL Open House on First Weekend in May

The 2008 Jet Propulsion Laboratory Open House will take place on Saturday and Sunday, May 3 and 4 from 9:00 AM to 5:00 PM. This popular event celebrates JPL's accomplishments with exhibits and demonstrations about the Lab's ongoing research and space exploration. Many of the Lab's scientists and engineers will be on hand to answer questions about how many spacecrafts are sent to other planets, how scientists utilize space technologies to explore Earth, and how researchers are searching for planets beyond the solar system. The Open House is a fun and educational experience for all ages, with special hands-on activities designed for kids.

Admission and parking is free. No backpacks or ice chests are allowed, with the exception of small purses and diaper bags.

JPL is located at 4800 Oak Grove in Pasadena, off the 210 Freeway. Parking will be available near the Oak Grove main gate or in the east parking lot. For more information, please call (818) 354-0112.
Public Events at Caltech

- **On Thursday, May 1** at 8:00 PM in the Beckman Auditorium, Caltech's **Voices of Vision Series** presents *The Rise of China* by Mike Chinoy. Mr. Chinoy has recently completed his tenure as CNN’s Senior Asia Correspondent, capping over 30 years of international journalism experience. He is the author of *China Live: People Power and the Television Revolution*, a book about his years reporting in China. This event is free, and no tickets or reservations are required.

- **On Tuesday, May 6** at 8:00 PM in the Beckman Auditorium, Caltech Public Events presents the **Chen-Huang Sustainable Energy Lecture**, given by Jim Woolsey. Woolsey, former Central Intelligence Agency director under President Clinton, will discuss how the end of foreign oil dependency could benefit U.S. national security and the environment. Woolsey also served in other positions under Presidents Carter, Reagan and Bush Sr., and is one of the most outspoken advocates for energy independence. This event is free, and no tickets or reservations are required.

- **On Wednesday, May 14** at 8:00 PM in the Beckman Auditorium, the **Earnest C. Watson Lecture Series** presents *Fighting Cancer with Nanoparticle Medicines* by Mark E. Davis. This lecture will present the current understanding of why nanoparticle medicines have the potential to change the way cancer is treated. Davis is the Warren and Katharine Schlinger Professor of Chemical Engineering, and a member of the Experimental Therapeutics Program of the Comprehensive Cancer Center at the City of Hope. This event is free, and no tickets or reservations are required.

For more information on these events and other programs at Caltech, please visit Caltech’s Public Events website at [http://events.caltech.edu](http://events.caltech.edu).

**Bus-In Fieldtrip**

A **Theatreworks/USA** bus-in will occur on May 9. The film, *Cracking the Code of Life*, is a **Reel Science** production. School buses will be parked along the west side of Hill Avenue between San Pasqual Street and Del Mar Boulevard from 9:00 AM to 11:30 AM.

If you would like to attend with your child or grandchild, please contact Heidi Bloks at 395-3685 for free admission.

For more information on this program, please visit Caltech’s Public Events website at [http://events.caltech.edu](http://events.caltech.edu).

**Seminar Day Is May 17**

**Seminar Day**, now in its **71st year**, has been called Caltech’s version of Homecoming, when alumni return to campus with friends and families, hear faculty presentations on current research and innovations, and reconnect with fellow alumni.

The day-long program includes dozens of faculty talks on various topics held in locations all over campus. This year’s mid-day general session features a conversation with Sandra Tsing Loh ‘83 and Nobelist David Politzer, and the presentations of the Institute’s highest honor, the Distinguished Alumni Awards. This award is given to alumni in recognition of "a particular achievement of noteworthy value, a series of such achievements, or a career of noteworthy accomplishments."

For more information on Seminar Day events, please visit the Alumni Association website at [http://www.alumni.caltech.edu/learning/seminar_day](http://www.alumni.caltech.edu/learning/seminar_day).
Solar Panels to Be Installed at Caltech

The City of Pasadena’s largest-ever solar-energy facility will soon be installed on the California Institute of Technology campus. Construction began April 14 and will conclude in August. The facility will be located on top of Caltech’s Holliston parking structure.

“This is part of Caltech’s commitment to minimizing the Institute's impact on the environment and reducing our dependence on nonrenewable energy,” said Caltech President Jean-Lou Chameau.

“The project came about as a result of Caltech’s continual focus on the best practices in sustainability and on developing goals and objectives central to renewable energy as a means to save money, foster awareness, reduce environmental consequences of Institute activities, and provide leadership and stewardship relative to the environment,” said Dean Currie, Caltech vice president for business and finance.

With these goals in mind, Caltech began construction of a solar-energy facility whose operation will be equivalent to eliminating 527,000 pounds of carbon dioxide emissions from the air each year, which equals removing 46 cars from operation, planting 72 acres of trees, or powering 38 average homes.

The City of Pasadena and Pasadena Water and Power have worked closely with Caltech to create the facility. The city and PWP are providing assistance with expedited permitting, technical support, and substantial rebates to promote renewable energy development in Pasadena.

"We take a lot of pride in what we have accomplished to date, but we are even more excited about what the future holds," said Bill Irwin, senior director of facilities management at Caltech. "We plan to add more solar facilities in the near future, to produce up to an additional mega-watt of power. We are looking for innovative ways to reduce water usage through sustainable planting and turf reduction and by capturing and reusing wastewater from our boilers. We recognize that what we are doing today and will do tomorrow directly affects those who will come after us, and we would like to leave a positive legacy."

To read the entire article, please go to http://mr.caltech.edu/media/Press_Releases/PR13132.html.

Construction Update

The construction of the Cahill Center for Astronomy and Astrophysics, south of California, is proceeding on schedule and the building should be occupied by late 2008. Virtually all Caltech buildings with laboratory facilities are required to include installation and/or maintenance of an emergency generator at each site, pursuant to a South Coast Air Quality Management District mandate. More than three dozen such generators already exist, and one more will be added for the Cahill Center.

Starting in early May and lasting through the first part of June, traffic and parking along California Boulevard near the construction site will be affected by the installation of sewer lines, water service, and electrical conduit. Parking is expected to be affected along both the north and south side of California, and traffic lane closures will occur intermittently during this underground infrastructure work. Caltech is working with the City of Pasadena to reduce any resulting inconvenience.

For the latest information on Caltech construction, please visit the new building website at http://newbuildings.caltech.edu.
A Grand Canyon as Old as the Dinosaurs?

The origin of the Grand Canyon has been a topic of scientific controversy for nearly 140 years. Now, with geochronologic data from the canyon and surrounding plateaus, Caltech geologists present significant evidence that the canyon formed nearly 50 million years earlier than previously thought. The results will be published in the May issue of the *Geological Society of America Bulletin* in a paper by Rebecca Flowers, a former Caltech postdoctoral scholar now on faculty at the University of Colorado; Chandler Family Professor of Geology Brian Wernicke; and Keck Foundation Professor of Geochemistry Kenneth Farley. They studied the sedimentary rock layers, or strata, of both the canyon and a large area of the surrounding plateaus.

The long-held interpretation sets canyon incision at about six million years ago, when the plateau that hosts it began to rise from near sea level to a current elevation of almost 7,000 feet. This view highlights the erosive power of the Colorado River, which cut into the plateau surface like a giant buzzsaw and progressively deepened the canyon at the same time the entire region was rising.

Now, using a radiometric dating method called uranium-thorium-helium [(U-Th)/He] dating, developed in Farley's lab, the researchers believe that uplift and carving of a deep canyon took place more than 55 million years ago, above the present position of the Grand Canyon's Upper Granite Gorge, within strata much younger than the Paleozoic rocks currently exposed in the canyon walls.

A key finding is that samples collected from the bottom of the Upper Granite Gorge region yield the same (U-Th)/He apatite dates as samples collected on the plateau surface nearby. "Because both canyon and plateau samples have resided near the same depth since 55 million years ago, a canyon of about the same dimensions as today must have existed at least that far back, and possibly as far back as the time of the last dinosaurs at the end of the Cretaceous period 65 million years ago," Wernicke states.

To read the entire article, please go to [http://mr.caltech.edu/media/Press_Releases/PR13129.html](http://mr.caltech.edu/media/Press_Releases/PR13129.html).

For the latest news and information, please visit Caltech’s website at [www.caltech.edu](http://www.caltech.edu).