

**aast**, Advanced Architecture Settimo Tokyo, is a series of events ideated by CASARTARC, an architectural association in Italy, (with Andrea Graziano and Davide Del Giudice) to link the host cities of the UIA International Congress of Architecture in 2008 and 2011: Turin and Tokyo.

As the joint event of **ALGODE TOKYO 2011** (<http://news-sv.aij.or.jp/algode/index.html>) the international symposium on Algorithmic design held by AIJ (Architectural Institute of Japan), Casartarc is offering the **aast** international student workshop in Tokyo on the theme:

**Generative Space for Tokyo: innovative use of wood with algorithmic design**

**OBJECTIVES**

The **aast** workshop aims at offering a unique, hands-on experience for architectural students to research and experiment in the field of Generative Architectural Technology and Computational Design applied to Digital Fabrication.

Participants will be able to explore new concepts for architecture and urban space by setting up adaptable design processes and seamlessly connect them to the real construction of a **1:1 scale prototype** for a

temporary space in Tokyo. Computational design techniques and real fabrication processes will be approached and explored at the same time through the use of the most traditional of the building materials in Japanese culture: **wood**. In traditional construction, the Japanese carpenters employed their knowledge (passed on from generation to generation) to use wood as a construction material, solving joint problems in a way to create long lasting structures.

Now algorithmic programs can help the designer to explore several design processes at once, to generate new environments and to create adaptive solutions for a particular spatial concept.

Digital fabrication processes, such as CNC cutting can deal with extremely complicated but algorithmically controlled work, making it possible to use this sustainable and natural material in innovative ways. By joining smaller, machine-cut pieces, according to an assembly rule to generate a whole it is thus possible to innovate along the Japanese tradition of creating patterns as a space-defining interface. Tradition and innovation, digital design and real fabrication will be the topics of this workshop, with the aim to advance theoretical research as well as potential practical applications of algorithmic design in architecture and urban design.

Image by Proxy



Image by Yasushi Ikeda



Image by Yasushi Ikeda



Image by Noiz



**ADMISSION & REQUIREMENTS**

- Open to undergraduate students (from 4<sup>th</sup> year on) and graduate students.
- Basic skills of 3D design mandatory.
- Knowledge of parametric design software is not mandatory but preferable.
- **Only 36 seats** (6 workgroups) are available and will be assigned to the first applicants.
- Participants will be organised into 6 international teams of 6 people each. Each participant will develop his/her own concept and then collaborate with the rest of the team for developing one common final design to be fabricated at the 1:1 scale. All official communication will be in English.

**SCHEDULE**

- 15 January** - Deadline for registration.
- 22 January** - Announcement of participants and teams. Payment of enrollment fee.
- 1 February** - Participants receive design brief and access to online working collaboration environment. Start of online international design collaboration (1 month brainstorming). Software, technical support and design tutoring will be provided online for 1 month.

- 14-15 March** - Free entrance at ALGODE Symposium in Tokyo. Design meetings and rapid prototyping in Tokyo.
- 16-17 March** - Teams assigned to local sites in Japan for 1:1 scale fabrication.
- 18 March** - Teams back to Tokyo for model assembly.
- 19 March** - Finish assembly, final presentation and critic session.

**PANEL DISCUSSION AND EXHIBITION (TO BE CONFIRMED)**

- 7 April** - Panel discussion at Italian Institute of Culture in Tokyo.
- 7 - 19 April** - Exhibition at Italian Institute of Culture in Tokyo.

**TEAM TUTORS**

- Jefferson Ellinger** (professor at RPI, USA)
- David Riebe** (former professor at RPI, USA)
- Ludovica Tramontin** (professor at Pratt Institute and Cagliari University)
- Toru Hasegawa** (Columbia University, Proxy, <http://www.proxyarch.com/>)
- Keisuke Toyoda + Junichiro Horikawa** (NOIZ arch., <http://www.noizarchitects.com/top>),
- Tsukasa Takenaka** (AnS Studio, <http://www.ans-studio.com/>)

**SUPERVISING TUTORS**

- Lorena Alessio** (Casartarc, Turin Polytechnic)
- Marco Corbella** (Ishimoto A&E/ Tokyo University of the Arts)

- Yasushi Ikeda** (Keio University)
- Shiro Matsushima** (Toyohashi Institute of Science and Technology)
- Kanada Mitsuhiro** (Arup/ Tokyo University of the Arts)
- Yusuke Obuchi** (Tokyo University)

**CRITICS**

- Kazuhiro Kojima** (CAT)
- Yusuke Obuchi** (Tokyo University)
- Mitsuhiro Kanada** (Arup/ Tokyo University of the Arts)
- Tomohiko Yamanashi** (Nikken Sekkei, Tokyo University of the Arts)

**DIRECTED BY**

- Lorena Alessio** (Casartarc, Turin Polytechnic)
- Yasushi Ikeda** (Keio University)
- Marco Corbella** (Ishimoto A&E/ Tokyo University of the Arts)

**TECHNICAL SECRETARIAT BY PROPLAN (Mr. Haruo Fukada)**

**WITH THE PARTICIPATION OF (TO BE CONFIRMED)**

- The University of Tokyo,
- Tokyo University of The Arts,
- Keio University, Waseda University,
- Toyohashi University of Technology,
- Osaka University, Kyoto University,
- Kumamoto University, Tohoku University, Kyoto Institute of

Technology, Nihon University, Tokyo Denki University

**PLACE**

**Tokyo, Shinkiba** (to be confirmed) + other local fabrication sites (workshop), **Italian Institute of Culture in Tokyo** (exhibition).

**COSTS**

- 850,00 Euro** - including:
    - Entrance fee to ALGODE 2011 Symposium
    - Participation at the workshop
    - Accommodation (7 nights from 13 to 19 March 2011).
- Payment information will be emailed to selected participants.

**REGISTRATION**

Please submit 1 A3 size poster pdf file with previous digital projects, together with the registration e-mail: [lorena@alessiostudio.com](mailto:lorena@alessiostudio.com)

**Deadline for registration: 31 January 2011**

**EXTRA**

**Japan Tour 20 - 27 March**  
 Tokyo, Matsumoto, Kanazawa, Kyoto, Osaka.  
 For info: Il Tucano Viaggi Ricerca [cristina.edizioni@tucanoviaggi.com](mailto:cristina.edizioni@tucanoviaggi.com)