



ECOTYPE

sustainability / grasshopper winter school
www.parametricbratislava.sk

brief

The workshop will look into digital sensing structure subsystems, constituted by associative simulations of the relations between tectonics and the environment in which human activities take place according to specific programs. It will provide and control a constant flow of information about the changing internal and external conditions which is processed by a computational subsystem articulated by **Rhinceros 5 + Grasshopper 3D & Sub-Plugins**.

Through this means we will explore new design opportunities, where the resulting proposal could challenge convention and the way that design is conceive, stepping away from linear process and embracing holistic approaches.

Framework: 1 day Grasshopper for beginners crash course + 6 days Main course

Date: 24th February – 2nd March 2014, 9:00-17:00

Place: Faculty of Architecture, Slovak University of Technology, Bratislava, Slovakia

Tutors: Aldo Sollazzo + Iker Mugarra Flores – NOUMENA

Advisors: Jelica Jovanović + Dragana Petrović – Grupa Arhitekata

Organizer: 3D Dreaming, rese arch

intro

"Life is a self-regulatory process. All living systems tend to adapt themselves to a set of specific purposes by evolution which results from the internal and external selective forces."— Wolf Hilbertz

Man's unique position in nature makes him increasingly capable of diverting the forces of nature to his own purpose even as he is subject to its forces. The material distribution and reclamation subsystem can become a metabolic mechanism, manipulating the sensing structure. It adjusts the physical environment to immediate, desired or projected needs of the user. It can transform the material into different states by readjusting, reorganising & reassembling material systems according to specific conditions to make it suitable for any desire purposes. In order to develop this emergent ecotype it is required to map the ecological complexity of contexts; from the tangible to the intangible – from the fiscal urban tectonics to environmental conditions, as a way to develop an associative design strategy that negotiates the local ecological dynamics as a way to attempt to create a symbiotic harmonious relation between environment and human dynamics and interventions.

The workshop will look into digital sensing structure subsystems, constituted by associative simulations of the relations between tectonics and the environment in which human activities take place according to specific programs. It will provide and control a constant flow of information about the changing internal and external conditions which is processed by a computational subsystem articulated by Rhino5 + GH & Sub-Plugins. Through this means we will explore new design opportunities, where the resulting proposal could challenge convention and the way that design is conceive, stepping away from linear process and embracing holistic approaches.

software & skills

Basic modeling skills in Rhino and Grasshopper + Plugins* (Primer level) are required. No specific Environmental modelling design skills are required although an introductory knowledge is welcome. For those with no former Rhinoceros or Grasshopper experience an optional one-day crash course will take place on 24th February 2014. The Crash course will be taught by Ján Pernecký and Fabio Palvelli (3D Dreaming).

Participants should bring their own laptop with pre-installed software. The software package needed has no additional cost for the participant (Rhino can be downloaded as evaluation version, Grasshopper and sub-plugins are free), but since they are subject to frequent updates a download link to the version used in the workshop will be sent to the participants a few days before the workshop. The only supported platform is proper MS Windows and the participants are strongly discouraged to use virtualization tools such as Parallels, VM Ware or VirtualBox. The recommended solution for Mac owners is a BootCamp Windows installation.

The Winter school and all supplemental events will be held in English.

*required grasshopper plugins: Ghowl, Elk, Heliotrope, Mesh edit, Sonic, Galapagos, Goat, Mesh+, Weaverbird, Kangaroo

the certificate

All eligible students who will participate and finish in the ECOTYPE winter school will receive a certificate signed by the tutors and the dean of the Faculty of Architecture, STU stating exact content and scope of the teaching activity. The participants can use the certificate for applying for ECTS at their domestic institute. We expect it to be awarded 2 or 3 ECTS respective to the rules of the participant's domestic university.

organizing institutions

3D Dreaming

rese arch

Noumena

Grupa Arhitekata

Faculty of Architecture, Slovak University of Technology

tutors

Aldo Sollazzo

Aldo Sollazzo is the director and co-founder of Noumena. Member of the Order Of Architects of Rome. Master in Advanced Architecture at Iaac. Winner of 2006 Concrete Design Competition. Teacher and researcher of computational design and digital fabrication strategies. Actually working in Noumena Barcelona, organizing several international events such workshop, competitions and research programs.

Iker Mugarra Flores

Studied at the AA, London. Collaborated with a variety of architects and studios, mainly specialized in advance geometries and logics, prototyping and fabrication, environmental morphologies and holistic approaches to large and small scale strategic design ecologies. Recently worked with CLOUD9_ Enric Ruiz Geli studio and also collaborated and taught at the IAAC. Currently working and running the computational and media courses at the UCL in the Urban Design Post-Graduate Courses in London as tutor and computational consultant.

Jelica Jovanović

PhD candidate of University of Technology Vienna, Faculty of Architecture, Institute for Art History, Archaeology and Preservation. Within Docomomo Serbia working on proposals for the protection and sustainable preservation policies of the architecture of modern movement in Serbia. Engineer of architecture, graduated at Faculty of Architecture University of Belgrade, Elective Course History and theory of art and architecture. Founder and member of NGO Group of Architects.

Dragana Petrović

PhD candidate of University of Technology Vienna. Graduated at Faculty of Architecture - University of Belgrade, elective course: Bioclimatic design in Architecture. BEST (Board of European students of technology) Alumna. Worked on several workshops at Faculty of Architecture (2005-2010), and several international workshops in BEST organization. Trainee of Belgrade Open School. Former employer: Serbian Academy of Sciences and Arts (Archaeological Institute), worked on Roman City Viminacium excavations. Founder of NGO Group of Architects - Belgrade

Ján Pernecký

Architect, researcher, curator, programmer. Founder of rese arch - a platform for theoretical, artistic and technological research and organizing of public talks, lectures, workshops. Curator of Asking Architecture, Slovak and Czech pavilion at the 13th Architecture Exhibition at La Biennale di Venezia

Fabio Palvelli

Architect, designer, researching and publishing architectural projects and organizing workshops, founder and co-director with Mike Pryor of 3d-dreaming.com

program

The Winter School will be divided into two consequent parts:

1. 24th February 2014
Rhinoceros 3D + Grasshopper Crash Course (optional) with Ján Pernecký and Fabio Palvelli
The participants will be taught the essence of NURBS modelling, import/export techniques, best drafting practices and basic Grasshopper scripting – workflow, parameters, components, data structures, attractors, surface subdivision, mathematical and logical operations.
2. 25th February - 2nd March 2014
Tooling workshop: Grasshopper with Aldo Sollazzo and Iker Mugarra Flores

The sessions will start every day at 9am and will last until approximately 5pm, with a lunch break and several short coffee breaks.

line-up

Day 0

(optional) crash course
rhino and grasshopper basics (jan and fabio)

Day 1

intro workshop (general introduction – fabio and jan)
intro sustainability (theoretical introduction – dragana and jelica)
intro noumena (technical introduction – aldo and iker)
division of students in 3 groups of people (3 persons each)
GH_DAY I: SITE/CONTEXT DATA (aldo and iker)
tools: ghowl / elk / terrain

Day 2

intro site analysis (dragana and jelica)
GH_DAY II : SITE ANALYSIS (aldo and iker)
tools: heliotrope/ geco/ ecotect/ isovist/ excel / mesh edit

Day 3

intro energy consumption (dragana and jelica)
GH_DAY III : MORPHOLOGY (aldo and iker)
tools: Sonic/ Vasari / ghowl /heliotrope /mesh edit / geco+Ecotect

Day 4

intro energy and morphology (dragana and jelica)
GH_ DAY IV: BUILDING ANALYSIS (aldo and iker)
tools: Galapagos/goat/ ghowl/heliotrope/mesh edit

Day 5

intro material systems and smart materials (dragana and jelica)
students prepare presentation (with help of aldo and iker)

Day 6

presentations / desk critics (aldo, iker, dragana, jelica, jan, fabio, chris, alex, martin)

subscription fees

early bird – 10th January to 2nd February 2014

3D Dreamers* : 269 €

educational** : 319 €

professional: 359 €

regular – 2nd February to 24th February 2014

3D Dreamers* : 319 €

educational** : 369 €

professional: 419 €

optional additional crash course

plus: 49 € on site

* participants of previous 3D Dreaming or rese arch workshops

** students, teachers, researchers & PhD (proof of status required)

Maximum 30 seats will be available. The Winter school will not take place if less than 10 participants will apply and pay the fee before 10th February 2014. All applicants will be informed about the current state as soon as the minimum number of applicants is achieved.

The price covers the tuition during the entire duration of the Winter school. Small snacks and coffee will be provided. The travelling, accommodation and diet has to be organized by the participants themselves.

application and payment

The Winter School application and payment process is possible exclusively online at the following address: <http://bit.ly/1cojn8E>

venue

Faculty of Architecture
Slovak University of Technology
Room 069
Námestie Slobody 19
812 45 Bratislava
Slovak Republic

contacts

www.3d-dreaming.com

fabio@3d-dreaming.com

jan@3d-dreaming.com

info@3d-dreaming.com

arrival

Bratislava is well connected with Vienna – the trains or buses leave virtually every 30 minutes throughout the entire day and the journey takes 1 hour.

The trains leave from Hauptbahnhof, Simmering, Stadlau and arrive to Bratislava Hlavna stanica or Bratislava Petralka. We recommend arrival to Hlavna stanica, which is in a walking distance from the venue. A single return ticket from Vienna to Bratislava and back costs 15Euro and includes free one day public transport pass in Bratislava. The weekly public transport ticket in Bratislava is available for 15Euro.

The shuttle buses leave from Vienna Suedtrollerplatz, Erdbergstrasse and Schwechat airport and the journey takes 1-1,5hr. A single ticket is 7-8Euro and the buses arrive to various destinations around the Bratislava city center with a good public transportation connection. There is also a ship on river Danube for the romantic souls.

Bratislava has an international airport but most of the flights arrive to Schwechat, which is half way between Bratislava and Vienna.

Driving from Vienna to Bratislava is convenient too. It takes 1hr from the center to the center, but there is a serious parking problem in Bratislava. For those who will stay in Bratislava for the entire week it would be possible to leave the car in the outskirts or in the hotel parking garage. For the daily commuters the train is much more convenient.

Bratislava has also a good train connection to Brno (1,5hr), Budapest (3hrs) and Prague (4hrs).

bratislava

Bratislava is a very lively city. Despite of its small scale it has a metropolitan feel. Cultural events and night life are worth experiencing and we strongly recommend for the participants to stay in Bratislava rather than to commute from Vienna.

Bratislava is both safe and friendly. Most of the people can speak English or German. Slovakia is a member of the European Union, Schengen zone, with Euro as the national currency.

The public transportation is convenient, yet not very comfortable. For longer or group journeys we recommend one of many taxi services. It is much cheaper to call the dispatcher and order the taxi. **Never take taxi on the street!** You shouldn't pay more than 4-6Euro for a trip, however the foreigners are usual victims of unreasonably high prices when they take a taxi on the street. You can order a taxi on numbers like +421 2 16 321, +421 2 16 100, +421 2 16 302 etc. or +421 902 222 333, +421 918 555 555.

Slovakia leaves an impression of a very cheap country to the foreigners. The main reason is the cheap beer in the restaurants and bars. It is not rare to pay 1,5Euro for 0,5l! The food is not that much cheaper, but the price range is wider than for example in Austria.

important note

3D Dreaming and rese arch promote world class teaching for everybody and strive at finding the best people and offering the best prices for further education or post professional courses in the field of architecture and design. The organizer does not provide any refund in the case of a missed participation. In the case of activity cancellation the participants will get a full refund before the end of the second week after the activity was scheduled to end or a respective sum in case a part of the activity will have been already conducted.

The participants will have to come to the activity with her/his own computer and a working latest version of Rhinoceros and Grasshopper with relative plug-ins. Eventual needed files will be given by the tutors via email or in person. A short troubleshooting session will be conducted at the beginning of the workshop.

The organization team is not responsible for any issues linked to the participants or to software or hardware in general.

The data provided by the participants will not be shared with anybody.