rethinking traditions and envisioning the future in architecture through the use of digital technologies

U.PORTO
Faculdade de Arquitectura
da Universidade do Porto

1st eCAADe
Regional International Meeting

4-5 April 2013
FAUP - Porto

eCAADe

CALL FOR WORKSHOPS
Application Form

To be filled an submitted to futuretraditions@arq.up.pt

1. Title

AB-USE Computation in Architecture

2. Tutor(s)

Name (1)	Ioanna Symeonidou
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Name (2)	Yannis Zavoleas
Country	Greece
Affiliation	Architecture School, University of Patras
Email	yannisz@upatras.gr

Note: The first Tutor will be used as the preferential contact during the "Call for Workshops" process.

3. Workshop Description

Nowadays it has become common that the digital medium does not merely define a vague research area, but a powerful tool of action, fully incorporated into architectural design practices. It is important to consider, however, that the "physical" properties of a medium – including the digital one – affect decisively the approaches and the results of design; additionally, that the modes of implementation about a medium often exceed its nominative properties. The medium gives form to creative thinking and acting, therefore it is necessary to scrutinize upon its qualities, in close relation to the ways it interferes with the design process.

The workshop responds to the above challenge. Its goal is to integrate parametric methods in architectural design. The scripting language MEL is introduced, developed on the platform set by MAYA design software. The basics of parametric design, the use of algorithms and the related techniques are presented following an intensive experimenting approach. Moreover, the parametric design methods are compared to digital model development. After a series of initial implementations on scripting techniques, participants will work in small groups, as they will focus on design research directions of their choice.

The workshop will offer an introduction to scripting with Maya MEL. Participants will acquire basic scripting skills (syntax, variables, arrays, flow control) and they will produce geometry based on mathematical rules. Through the examples and exercises they will explore the possibilities of computational design for architectural applications. It is a hands-on workshop, there are introductory lectures as well as working sessions.

Note: Short description of the workshop contents and goals.

4. Tentative Schedule

10.00-12.00: Introduction to MEL scripting, syntax, flow control, geometric primitives and transformations.
12.00-13.00: Creative sessions with participants, presentations of examples and tutorials

13.00-14.00: Lunch break

14.00-15.00: Computational Design methods. Digital experiments with iteration, replication, proliferation, variation.
15.00-18.00: Working sessions individually or in small groups towards a small task that makes use of the knowledge gained and tutorials.
18.00-19.00: Slide-show of produced work and workshop evaluation.

Note: Short description of the workshop program considering one (April 4) or two (April 3 and 4) days.

5. Requirements

PC lab or plugs for participants' laptops, and projector for teaching. Participants should bring their own laptops. Autodesk Maya is needed to be installed. Trial version, educational version is enough.

Note: *Indicate the equipments and facilities needed to support the workshop.*

3. Conditions

Registration Cost	40 euros
Participants (min. number)	6
Participants (max. number)	25
Deadline for registration (date)	02/04/12

Note: *This is information is important because each workshop must be financially viable. Estimate the registration cost for the participants and the minimum number of participants that should be registered in order to support the tutors expenses/honorariums. Considering this, indicate the date until you can wait to check if the minimum number of participants has been reached or not.*

6. References

Previous workshops by this team took place at the University of Patras and at the Technical University of Prague during ecaade2012 conference.

http://abusecomputation.wordpress.com/2012/03/29/1322/

http://ecaade2012.molab.eu/workshops.htm#ABUse

Additionally:

Ioanna Symeonidou teaches digital design workshops and studios at the Technical University of Graz

Digital Design Methods - https://iam2.tugraz.at/dm2/w12/

Design the Negative Studio Project - https://iam2.tugraz.at/studio/s12/

Yannis Zavoleas teaches advanced digital design studios at the University of Patras

http://yzarch.wordpress.com/2012/06/23/code-species-advanced-studio-university-of-patras-spring-2012/

Note: *Mention some references about you and your work (e.g., website links or publications).*