Workshop Programme (part 1 – timetable)

[Venue: TU Wien, Freihaus building, Green Tower A, 7th and 8th floor, Wiedner Hauptstrasse 8-10, 1040 Wien]

Saturday September 13, 2008

08.30-09.00: Registration (TU Wien, ZS 3)
09.00-10.30: Workshops #1, #3, #4
  Coffee Break (at ZS 3)
11.00-12.30: Workshops #2, #3, #4
  Lunch Break – attendees on their own
14.30-17.00: Workshops #3, #4

Sunday September 14, 2008

08.30-09.00: Registration (TU Wien, ZS 3)
09.00-10.30: Workshops #3, #4, #5
  Coffee Break (at ZS 3)
11.00-12.30: Workshops #3, #4, #5
  Lunch Break – attendees on their own
12.45-14.15: Workshop #7
14.30-17.00: Workshops #3, #4, #6

18.00-20.00: Opening Reception
  [Venue: TU Wien, Böckisaal, Karlsplatz 13
  Note: other building than workshops]
Workshop Programme (part 2 – details on workshops)

[Venue: TU Wien, Freihaus building, Green Tower A, 7th and 8th floor, Wiedner Hauptstrasse 8-10, 1040 Wien]

Workshop #1 (Saturday 9.00-10.30, DZ, 25 participants)
Freeform Glazed Roof Structure Informed by Mathematical, Structural, and Environmental Considerations
Halcrow Yolles (Studio for Progressive Modeling), Jonathan Hendricks, Crispin Howes, Daniel Hambleton

Workshop #2 (Saturday 11.00-12.30, DZ, 25 participants)
Architectural Modeling with Shape Grammars
Pascal Mueller (Procedural Inc.)

Workshop #3 (Saturday 9.00-17.00 & Sunday 9.00-17.00, ZS 1, 10 participants)
Structural Tessellations
Christian Troche (University Kassel)

Workshop #4 (Saturday 9.00-17.00 & Sunday 9.00-17.00, CAD 1, 21 participants)
PARAKNIT
Norbert Palz and Martin Tamke (Royal Academy of Fine Arts, School of Architecture, CITA), Eyal Nir (Paracloud Ltd)

Workshop #5 (Sunday 9.00-12.30, CAD 2, 25 participants)
Paneling NURBS Surfaces and Polysurfaces in Rhinoceros
Rodrigo Bárcena (McNeel)

Workshop #6 (Sunday 14.30-17.00, CAD 2, 25 participants)
Grasshopper, Generative Modeling for Rhino
David Rutten (McNeel)

Workshop #7 (Sunday 12.45-14.15, CAD 2, 25 participants)
Calculated Nature in Architecture
Milena Stavric, Albert Wiltsche (TU Graz, Faculty of Architecture)

All workshops are held at the Institute of Discrete Mathematics and Geometry, TU Wien, Freihaus building, green tower A, 7th and 8th floor, Wiedner Hauptstr. 8-10, 1040 Wien.

Rooms in 7th floor
ZS 3: Zeichensaal 3 (Registration, coffee breaks, discussion room)
CAD 2: Computer Room 2 (Workshop #5, #6, #7)

Rooms in 8th floor
DZ: Dissertantenzimmer (Workshop #1, #2)
ZS 1: Zeichensaal 1 (Workshop #3)
CAD 1: Computer Room 1 (Workshop #4)
Conference Programme (part 1 – timetable)
[Venue: Theatersaal, Austrian Academy of Sciences, Sonnenfelsgasse 19, 1010 Wien]

Monday September 15, 2008

08.00-09.00: Registration

09.00-09.30: Opening by Christian Kühn (Dean of Architectural Studies, TU Wien)
Music by “Art of Brass Vienna”

09.30-10.30: Algorithmically Acquired Architectural and Artistic Artifacts
Invited Speaker Carlo Séquin (UC Berkeley)
Chair: Helmut Pottmann

Coffee break

11.00-12.30: Session #1 Regular and Irregular Structures (4 speakers)
Chair: Robert Aish
Lunch break – attendees on their own

14.30-15.30: Rationalization, Complexity and Emerging Ontologies of Design
Invited Speaker Dennis R. Shelden (Gehry Technologies)
Chair: Fabian Scheurer

Coffee break

16.00-17.00: Session #2 Design Tools and Origami (3 speakers)
Chair: Jane Burry

17.00-17.30: Poster Session #1

17.45-18.00: Departure of buses to Conference Dinner (Note: a short walk from the venue)
18.30-24.00: Conference Dinner at Heuriger Fuhrgasslhuber
23.00-24.00: Buses will bring participants back to the centre of Vienna

Tuesday September 16, 2008

09.00-09.30: Registration

09.30-10.30: Optimal Surfaces and Meshes
Invited Speaker Konrad Polthier (FU Berlin)
Chair: Johannes Wallner

Coffee break

11.00-12.30: Session #3 Construction Technology for Freeform Geometry (4)
Chair: Alexander Bobenko
Lunch break – attendees on their own

14.30-15.30: Invited Speaker Arnold Walz (designtoproduction)
Chair: Lars Hesselgren

Coffee break

16.00-17.00: Session #4 Geometry from Linear Elements (3 speakers)
Chair: Toni Kotnik

17.00-17.30: Poster Session #2

17.30-18.30: Get Real
Invited Speaker Charles Walker (Zaha Hadid Architects)
Chair: Axel Kilian

18.30-18.40: Closing of Conference
Conference Programme (part 2 – oral presentations)
[Venue: Theatersaal, Austrian Academy of Sciences, Sonnenfelsgasse 19, 1010 Wien]

Regular and Irregular Structures – Session One (Chair: Robert Aish, Mon 11.00-12.30)

Symmetry for Architectural Design
Niloy Mitra (IIT Delhi), Mark Pauly (ETH Zürich)

Frameworks for practical parametric design in architecture
Roly Hudson (The University of Bath)

Generating Geometry of Irregular Frameworks Algorithmically
Arne Hofmann, Klaus Bollinger (UAK Wien, B+G Ingenieure), Manfred Grohmann (Uni Kassel, B+G Ingenieure)

Bitmap-driven Parametric Facades
Steffen Lemmerzahl (ETH Zürich)

Design Tools and Origami – Session Two (Chair: Jane Burry, Mon 16.00-17.00)

Curved Crease Origami
Duks Koschitz, Erik Demaine, Martin Demaine (MIT)

Developable Surfaces with Curved Creases
Martin Kilian, Simon Flöry (TU Wien, Evolute), Zhonggui Chen (TU Wien, Zhejiang University), Niloy J. Mitra (IIT Delhi), Alla Sheffer (UBC), Helmut Pottmann (TU Wien)

Design By Tool Design
Urs Füssler (Füssler Berlin)

Construction Technology and Freeform Geometry – Session Three
(Chair: Alexander Bobenko, Tue 11.00-12.30)

Glazing Technology: the Hidden Side of Free-Form Design
Niccolò Baldassini (RFR Paris)

Architectural freeform structures from single curved panels
Alexander Schifftner (Evolute), Niccolò Baldassini (RFR Paris), Pengbo Bo (The University of Hong Kong), Helmut Pottmann (TU Wien)

Generative surface smoothing and automated analysis model processing
Florian Gauss, Mitsuhiro Kanada, Daniel Bosia (Arup Advanced Geometry Unit)

membrane development as a case study for approaching architecture as a complex network of interactive spatial components
Tomasz Jaskiewicz (TU Delft)

Geometry from Linear Elements – Session Four (Chair: Toni Kotnik, Tue 16.00-17.00)

Planar Hexagonal Meshes by Tangent Plane Intersection
Christian Troche (Universität Kassel)

On Vertex Offsets of Polyhedral Surfaces
Yang Liu, Wenping Wang (The University of Hong Kong)

Complex geometries in Wood
Martin Tamke, Mette Ramsgard Thomsen, Jacob Riiber (Royal Academy of Fine Arts)

Advances in Architectural Geometry, September 13-16, 2008, Vienna, Austria
Conference Programme (part 3 – posters on Monday)
[Venue: Theatersaal, Austrian Academy of Sciences, Sonnenfelsgasse 19, 1010 Wien]

Poster Session #1 – Monday September 15, 2008

Each poster will be accessible to all participants throughout the whole day for discussion at coffee breaks and in the special poster session.

Using Parametric Software to Expand Geometric Limits of Vernacular Materials
Beorkrem, Christopher and Ault, Nicholas (University of North Carolina-Charlotte)

Structural Components, parametric associative conceptual structural design tools
Breider, Janwillem and Coenders, Jeroen (TU Delft / Arup, The Netherlands)

Catastrophes in architectural model space
Burry, Jane (RMIT University, Australia)

Sloping façade building section: an exploratory study with shape grammar
Cypriano, Débora and Celani, Gabriela (State University of Campinas, Brazil)

From parameter to production
Dempsey, Alan

Notes on the potential of simulation for architectural conception
Feringa, Jelle (The Netherlands)

The Effects of Advances in Architectural Geometry on the Building Form and Structure
Halicioglu, F. Hilal (Dokuz Eylul University, Turkey)

The Role of Architectural Geometry in Performance-orientated Design
Holzer, Dominik (Rmit University, Melbourne) and Downing, Steven (Arup, Sydney, Australia)

Spatial and Sectional Geometry of the Bearing Structure of the Open Theater at Hellenic World Foundation Complex in Athens
Kyriazis, Manos and Bachounzouzi, Georgia and Makriyannis, Michael (ESK Str. Engineering Technical Office, Greece)

Geometric Configuration of Helical Tensegrity Structures
Liapi, Katherine (University of Patras, Greece) and Kim, Jinman

Poster presenters: Please mount your posters in the morning and demount them in the evening of the same day.
Conference Programme (part 4 – posters on Tuesday)
[Venue: Theatersaal, Austrian Academy of Sciences, Sonnenfelsgasse 19, 1010 Wien]

Poster Session #2 – Tuesday September 16, 2008

Each poster will be accessible to all participants throughout the whole day for discussion at coffee breaks and in the special poster session.

An Anti-Clastic, Double-Curved SLEs-Structure
Petrova, Polina (TU Wien, Austria) and Sommer, Bernhard (TU Delft, The Netherlands)

Advanced Geometry, Rudimentary Construction: Structural form finding for unreinforced thin-shell masonry vaults
Ramage, Michael (Cambridge University, UK), Ochsendorf, John (MIT, USA), Block, Philippe (MIT) Rich, Peter (Peter Rich Architects, South Africa)

Nonlinear Systems Biology and Design: Surface Design
Sabin, Jenny and Jones, Peter Lloyd (University of Pennsylvania, USA)

Design and Panelization of Architectural Freeform-Surfaces by Planar Quadrilateral Meshes
Schmiedhofer, Heinz (TU Wien), Brell-Cokcan, Sigrid (TU Wien / II Architects int.), Schiftner, Alexander (TU Wien) and Ziegler, René (Waagner-Biro, Austria)

Precision of Continuously Variable Structures
Sommer, Bernhard (TU Delft, The Netherlands)

Beyond Isocurves
Stehling, Hanno (University of Kassel, Germany)

Iterative Geometric Design for Architecture
Stotz, Ivo and Gouaty, Gilles and Weinand, Yves (Ecole Polytechnique Fédérale de Lausanne, Switzerland)

Evolving space frames
Tessmann, Oliver and Schein, Markus (University of Kassel, Germany)

Integrated Delivery Empowered by Computational Geometry
Vilkner, Gregor and Laufs, Will (Thornton Tomasetti, USA)

Rule-based Procedural Reconstruction of NURBS Surfaces for Architectural Exploration
Wang, Tsung-Hsien (Carnegie Mellon University, USA)

Poster presenters: Please mount your posters in the morning and demount them in the evening of the same day.