EUROGRAPHICS WORKSHOP on

Computational Aesthetics
in Graphics, Visualization, and Imaging

18 – 20 May, 2005 in Girona, Spain

Call for Participation

This will be the first EG workshop on Computational Aesthetics in Graphics, Visualization and Imaging, to take place in sunny Spain, in Girona which is near to Barcelona. The goal of this event is to enable experts of computer graphics, visualization, coloristic and imaging to meet and discuss various aspects of this emerging interdisciplinary area.

The new discipline of Computational Aesthetics is an experimentally based scientific field and not a philosophically based modern version of art. The goals, methods, and scholarly endeavor of interest to the respective communities are different. Accordingly this workshop will deal with the applied rather than the philosophical nature of aesthetics. Computational Aesthetics provides tools for the graphics and visualization communities to increase the value of displayed imagery and to avoid classical artifacts. Beginning work in the area demonstrates examples of effective techniques and provides a methodology that will generalize to a broader class of problems. This iterative two-part process consists of using artistic computer graphics techniques to enhance the presentation of important data features, then conducting perceptual studies to evaluate the effectiveness of the resulting imagery. The strength of this approach lies in the synergy achieved in the tight coupling of these research areas. The workshop shall ensure further possibilities for researchers dealing with partly overlapping areas like non-photorealistic rendering or applied perception.

Workshop topics include but are not restricted to

- Optimal view point selection (artistic and/or representative visualization)
- Automatic Lighting Design, Image Relighting Techniques
- Non-Photorealistic Rendering, Painting-like rendering, Drawing
- Artistic Textures, Patterns, Ornaments, Tiling
- Sketching, Simplification techniques, Technical and Medical Illustration
- Computational Color Harmony, Color Dynamics, Color Environmental Design
- Color Preferences / Effects and Roles of Colors
- Colorization of gray-scale images, Pseudo-Coloring techniques
- Color Style Transfer Techniques between Images
- Image Analogies
- Applied Visual Perception (Color Appearance, Spatial Vision and other aspects)
- Perceptual / Cognitive High Dynamic Range Imaging
- Artistic Image Transformation Techniques
- Generalized Image Synthesis (nonlinear mappings, spaces, rays, camera models)
- Image Style Analysis (paintings, photographs, others)
- Composition, Visual Balance, Layout
- Design of Geometrical and Fractal Scenes
- Image and Scene Complexity, Image Appearance, Image Quality
- Empirically based Metrics of Aesthetical Attributes

Participation can be with or without an oral presentation. To apply for a talk, please send a one-page abstract of your intended topic by **15 March, 2005**. Topics do not have to be unpublished research, but should either highlight the aesthetic aspects or contain new ideas in this direction. Talks will be 20 minutes plus 20 minutes discussion. A selection of submitted abstracts will be done on a pure thematic judgment, notification will happen before **31 March, 2005**. During the workshop the organizers together with the participants will define those papers which shall be included in a **full color proceedings** volume published by Eurographics.

Organizers: László Neumann (E), Mateu Sbert (E), Bruce Gooch (US), Werner Purgathofer (A)

For further details please visit our web-site at **www.computational-aesthetics.org**