(images for)

Introductory class

CS 48N, Winter 2011

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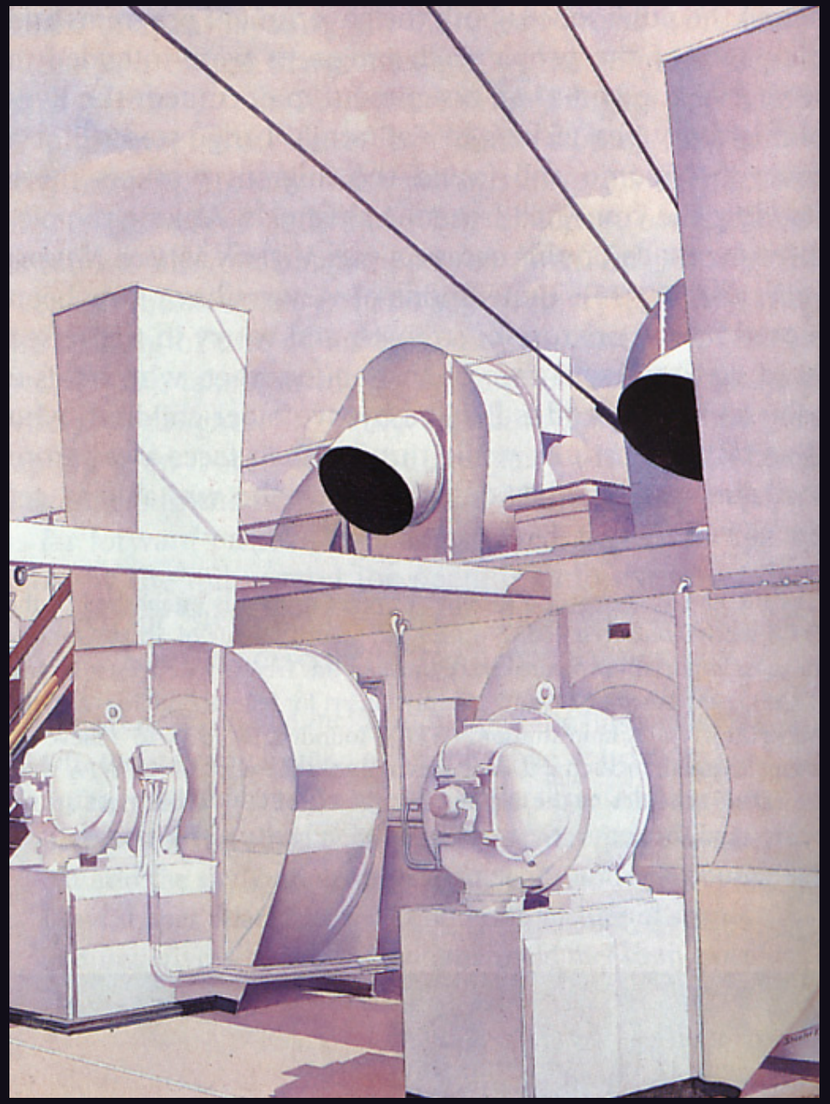
Kleitias and Ergotimos, Francois Vase (570 B.C.)

Gnosis, Stag Hunt (300 B.C.)

Kleitias and Ergotimos, Francois Vase (570 B.C.)

Charles Sheeler, The Upper Deck (1929)



Joseph Wright, A Philospher Giving a Lecture at the Orrery (1765)

Georges de La Tour, The Carpenter (1640s)

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Nakamae et al., A Lighting Model Aiming at Drive Simulators, Proc. Siggraph 1990

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DRAWING BY ALAIN © 1955 THE NEW YORKER MAGAZINE, INC.

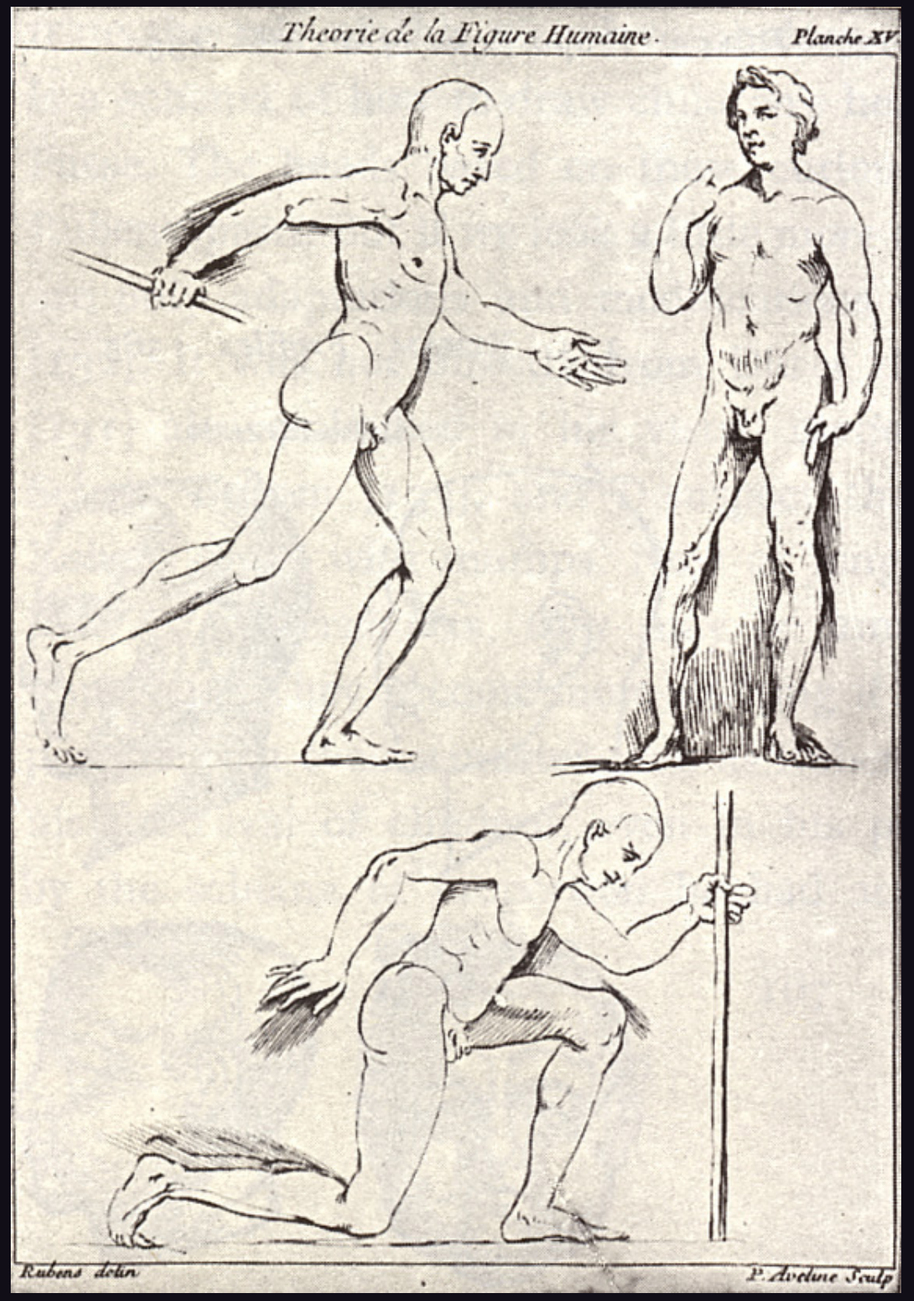
What is a style?

- the current state-of-the-art in imitating nature

Claude Lorrain, The Tiber above Rome (1640s)

What is a style?

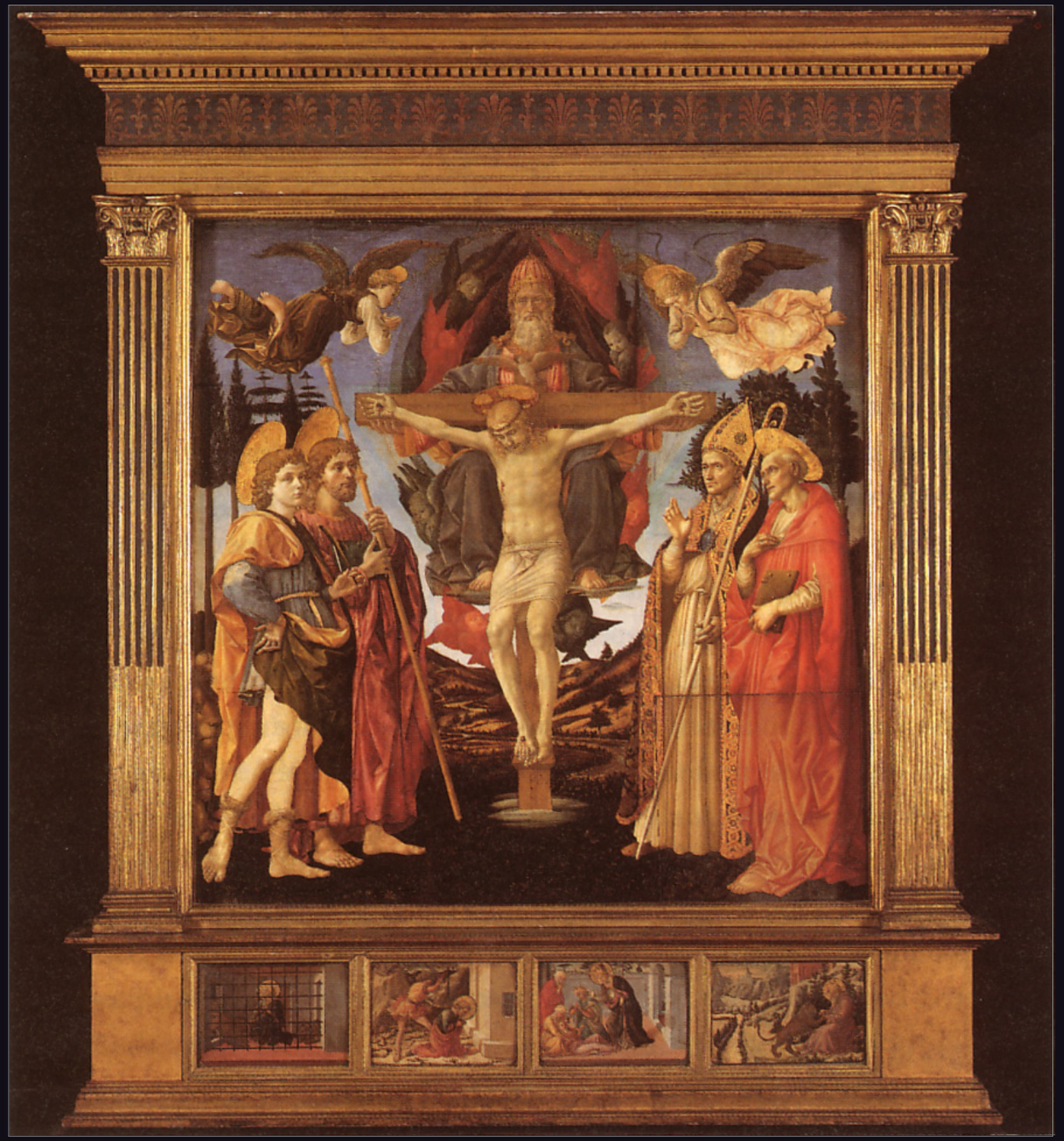
- the current state-of-the-art in imitating nature
- a learned set of conventions for representing nature
  - a set of shared conventions
  - that facilitate rapid perception
  - using an economy of means



Peter Paul Rubens, Theorie de la figure humaine (1773)

What is a style?

- the current state-of-the-art in imitating nature
- a learned set of conventions for representing nature
  - a set of shared conventions
  - that facilitate rapid perception
  - using an economy of means
- a choice of representation that evokes an emotion



Fra Filippo Lippi, Trinity Altarpiece (1457)

Michelangelo, Sistine Chapel, The Prophet Joel (1512)

before restoration

after 1980s restoration

Michelangelo, Sistine Chapel, The Prophet Joel (1512)

Leonardo,
Mona Lisa (1502)

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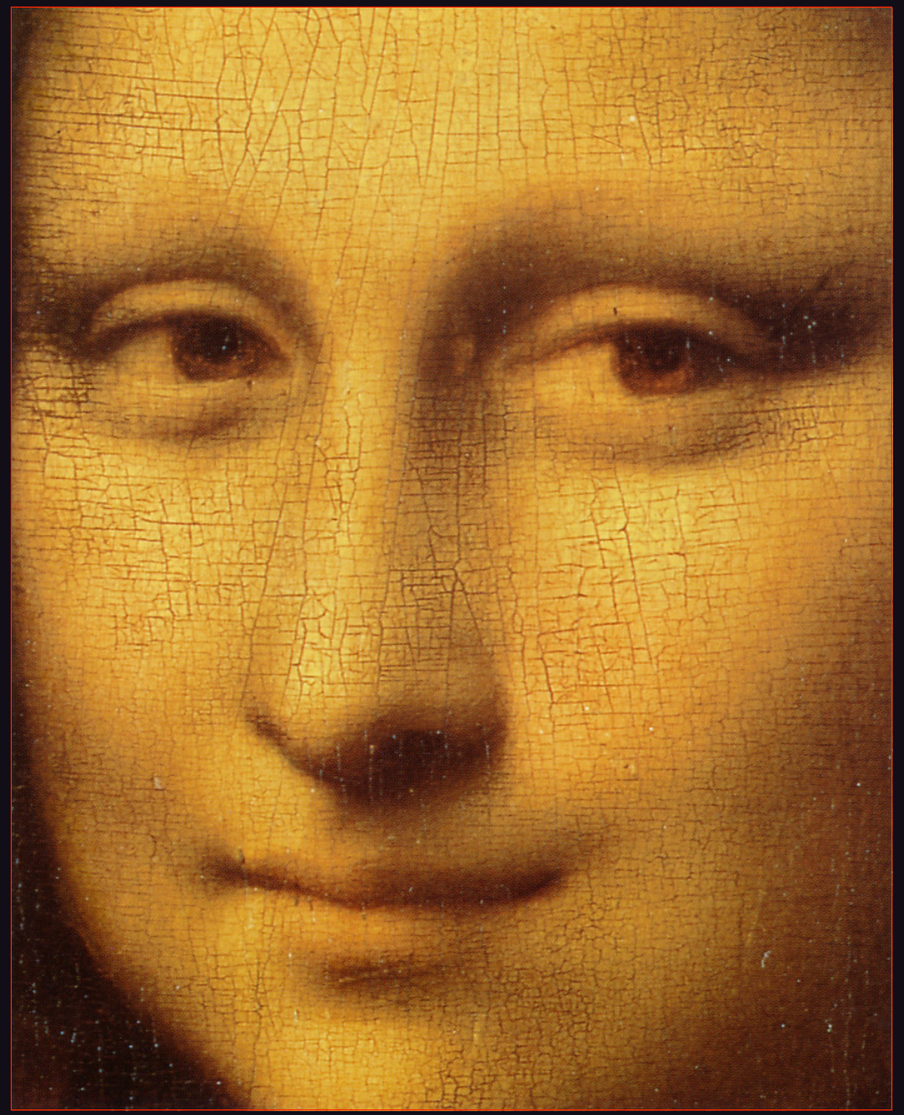

Questions about illusionistic art

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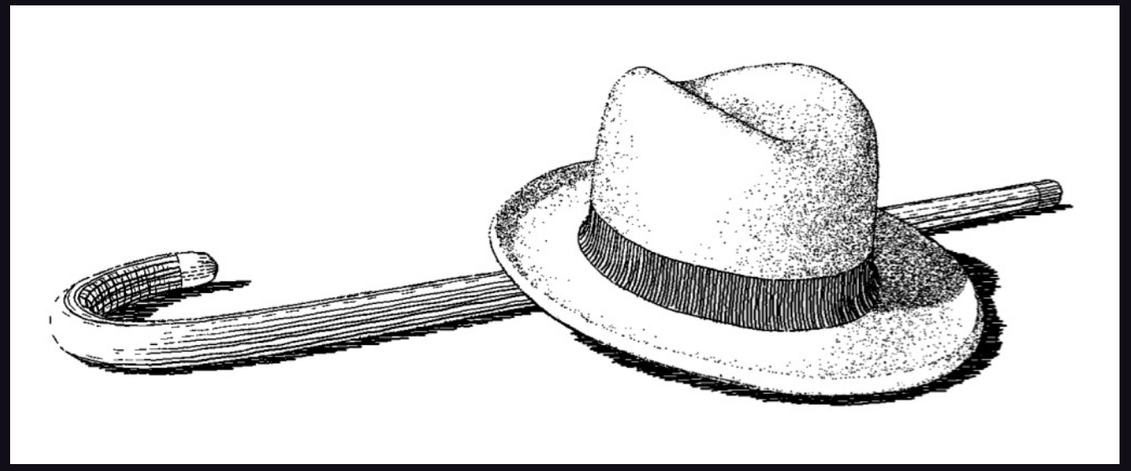
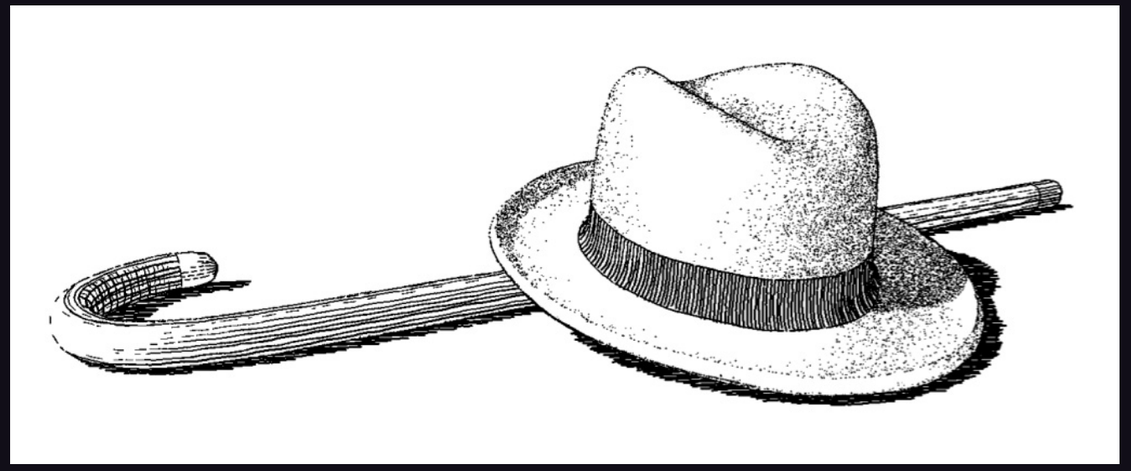
Questions about illusionistic art

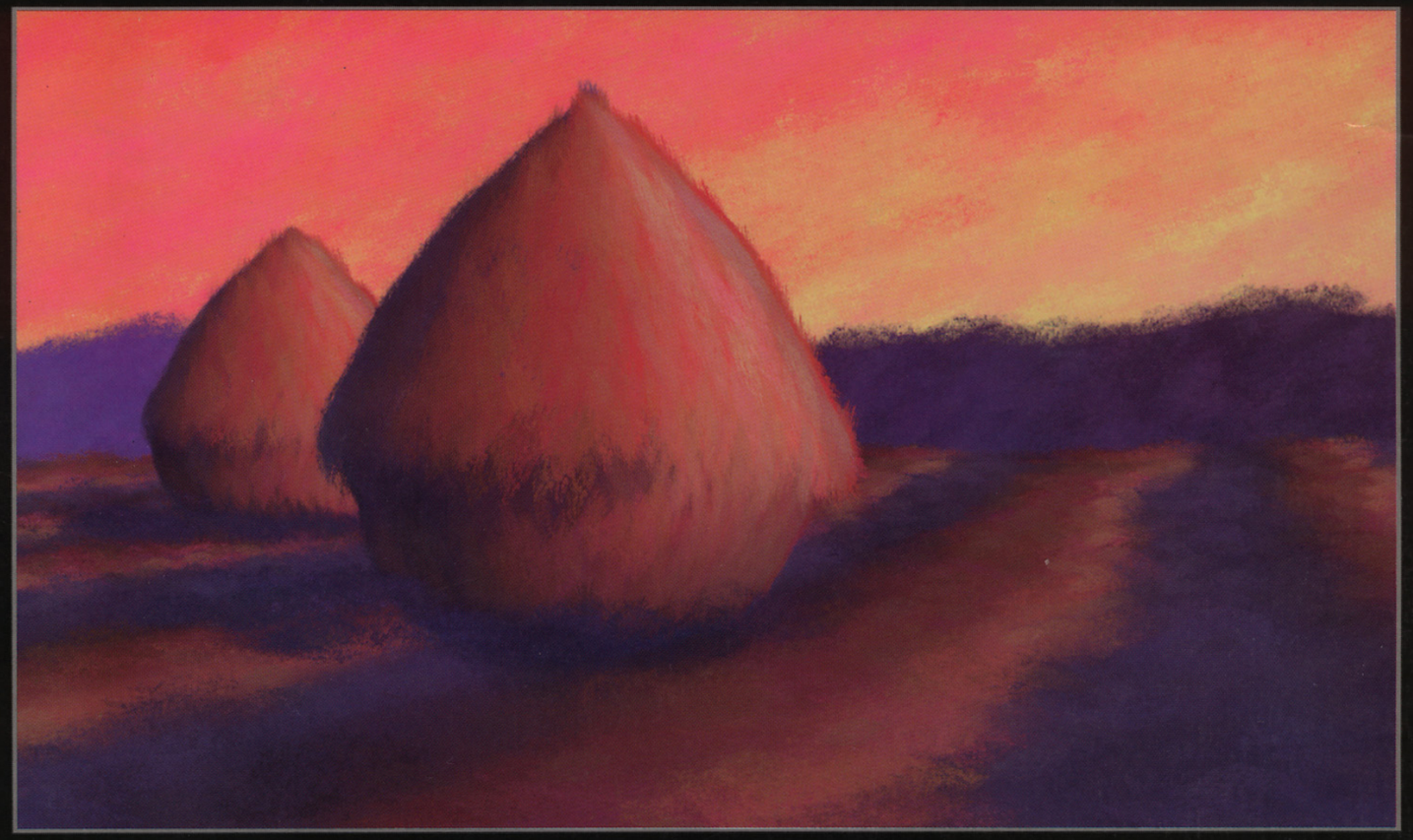
- What do scientists know about creating an illusion of nature?
- How do specific artistic techniques work to create this illusion?
- If we can mathematically model the limitations of images as a medium, and we know and can model illusionistic techniques for overcoming these limitations, can we "compute" optimum illusions?
- Can we automatically (or semi-automatically) compute non-illusionistic stylistic renderings, e.g. for illustration of scientific data?

Winkenbach et al., Rendering Parametric Surfaces in Pen and Ink, Proc. Siggraph 1996



Winkenbach et al., Rendering Parametric Surfaces in Pen and Ink, Proc. Siggraph 1996





Meier, Painterly Rendering for Animation, Proc. Siggraph 1996