Painting Media
Why do People Paint Objects?

- Expression
- Aesthetics
- Decoration
- Ritual
- Protection
- Preservation
- Waterproofing
- Communication
What is Paint?

- Application of a coating to a surface
- May be colored or non-colored
- May be applied in wet or dry form
Paints Usually Contain.....

1. colorants
2. Binders*
3. solvents or diluents
4. fillers and additives

* Determines the type of paint
Anatomy of a Painting

Supports — wood, canvas, stone, paper
Grounds — gesso (gypsum, CaSO₄), oils, glues

Varnish (optional)
Pigment + Binder
Ground
Support
Types of Paints

- Encaustics — ancient Egypt
- Fresco — early Greeks
- Watercolor and Gouache — ancient Egypt
- Egg Tempera — 10th-12th century
- Oils — 1400s-1700 (peak)
- Pastels — 1400s
- Crayons — 1903
- Synthetic Resins — Alkyds and Acrylics - 1920s
A Very Brief History of Painting

- Cave painting
- Encaustics
- Tempera
- Fresco
- Oil painting
- Crayons
- Watercolor
- Acrylics
Cave Painting

- Natural Earth pigments in animal fats

Altamira Cave
Book of the Dead Portraits

- **Encaustic painting** of mummy portraits done by Greeks in 1st and 2nd centuries
- Painting with pigment and beeswax on wood, cloth or stone
Encaustic = to burn in

- Encaustic on wood
- Walter’s Gallery
  Baltimore, MD
Faiyum, Egypt (2nd century)

Female Portrait Mask

Male Portrait Mask
R & F Encaustics - Kingston, NY

Raw wax to finished paint.
Working with Encaustics

- Heated palette and tools are a must.

- Using a heat gun to move “paint”
Modern Encaustics
Fresco

- Michelangelo’s Sistine Chapel Ceiling (1400s)
- Painting on wet plaster
Early Watercolors

- Pigment suspended in water
- Possibly a weak binder (plant gum?)
Illuminated Manuscripts

- **Watercolors** done by monks during dark and middle ages on parchment or vellum
- Pigment in egg white (*glair*) or plant gums (*gum Arabic*)
- Gold and silver leaf
Illuminated Manuscripts

- Prayer books
- Hymnals
- Labor intensive preparation and application of materials
Egg Tempera

- Byzantine — Medieval (1200-1500 AD)
  - egg tempera on wood panels
- Altar panels and religious paintings of 10th-14th centuries
- Egg yolk and water on gessoed wood panels

Altar panel tryptic
Anatomy of a Panel Painting

- Wood Support
- Gesso Ground
- Paint Layer
Panel Painting in Egg Tempera

- Side view of wood panel
- Gesso layer
Egg Tempera Altar Piece

X-ray of panel
Craqueleur = fine pattern of cracks in paint surface
Oil Painting

- Introduced in 1400’s
- At first oil paintings were done on wood panels
- Sometimes a mix of oil and tempera
- Gradually primed canvas replaced wood as support
- Completely replaced egg tempera by 1700’s

Jan van Eyck’s *Arnolfini Wedding*
1434, oil on oak panel
Anatomy of an Oil Painting

Wood Stretcher

Varnish Layer

Paint Layer

Ground Layer - oil & lead white

Animal Glue Size

Linen/Cotton (Canvas)
Jan Vermeer (Dutch, 1632-1675)

The Girl with the Red Hat  

Girl with a Pearl Earring
Oil Paints

- “Drying Oils” from plants act as binder
  - 1. linseed oil — flax seeds
  - 2. poppy seed oil
  - 3. tung oil
  - 4. walnut oil

- Organic solvents — turpentine, mineral spirits

A Young Woman Powdering Herself
George Seurat (1889), oil on canvas
Pastels

- Leonardo da Vinci used pastel sticks in 15th century
- Pigment + Plant Gum
  - Gum Arabic (Acacia tree sap)
  - Gum Tragacanth (sap from a shrub)
- Pigment held on surface by friction
  - fragile

Edgar Degas (1834-1917)
Crayons

- Pigments + Wax (paraffin waxes)
- Binney & Smith — 1902 — Allentown, PA
Support for Dry Media

- Parchment — prepared animal skins
- Paper — a natural cellulose polymer
  - from vegetable fibers
- Must be calendered or coated
  - to smooth and reduce absorption

Pigment

Paper
Modern Synthetic Paints

- **Synthetic Polymer Resins**
  - Acrylcs and Alkyds
  - Introduced in 1930s and 1940s
  - water-based paints
Acrylic Paints

- polymethyl methacrylate (plexiglass) polymer suspended in water

Jackson Pollack (1912-1956)

Mark Rothko (1952)
Varnishes and Top Coats

- Contain no pigment
- Only binder and solvent
- Ideally form a colorless, non-reactive, protective film on coated surface
- Natural resins — dammar, mastic, copal
- Synthetic polymers — acrylics, urethanes
Anatomy of a Painting

Supports — wood, canvas, stone, paper
Grounds — gesso (gypsum, CaSO₄), oils, glues
Paint Composition

- PIGMENT
  - Colored Pigment
  - Extender
- BINDER
  - Vehicle
  - Additives
    - Film-Former
    - Solvent