

*The Art and Science of Depiction*  
*Limitations of the Medium,  
compensation or accentuation*

*Fredo Durand  
MIT- Lab for Computer Science*

*J. M. W. Turner*

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1843, London, Tate Gallery



Shade and Darkness  
– the Evening of the Deluge



Light and Colour (Goethe's Theory)  
– the Morning after Deluge

Limitations

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## *Isabella Stewart Gardner Museum*



Limitations



3

## *Isabella Stewart Gardner Museum*



Limitations

4

## Isabella Stewart Gardner

- portraits



By Sargent



By Zorn

Limitations

5

## Stolen artworks



Jan Vermeer, *The Concert*, 1658-60



Rembrandt von Rijn,  
*The Storm on the Sea of Galilee*  
1633

Limitations

6

## *Isabella Stewart Gardner Museum*

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- John Singer Sargent, *El Jaleo*, 1882



Limitations

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## *Survey*

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- Scattered!
- There is too much
- You want more
  - More connections
  - Rather more practical
- Reading
  - Scattered
- Lecture
  - Rather complex
  - OK to too fast
  - More images, more films, more variety

Limitations

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## *Goals*

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- Broad overview
- Raise issues
- Different point of view
- Give “cultural background”

## *Format*

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- Too formal
- Active participation is not encouraged enough
- Problem: I talk too much
- Lower our expectations
- More discussion

## *Web page of the class*

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- Slides
- Further reading recommendation
- In the future
  - Annotated bibliography
  - Notes of the slides

## *Assignments*

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- Readings
  - Different choices
  - Summarize to others the next week
  - Prepare questions for the text you have not read
- Solso *Cognition and the Visual Arts*
- Essay
  - Exploratory
  - Or Picture comment
- Final project

## *Personal Meeting II*

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- Class
- Essay
- Project

## *Limitations*

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- Specificities of the 2D medium
- Compensation
- Accentuation

## *Plan*

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- The picture is flat
- The viewpoint is unique
- The image is finite, it has a frame
- The picture is static
- The contrast is limited
- The gamut (palette) is limited

## *The viewpoint is unique*

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- Accidental/general viewpoint
- Multiple views
- Mirror
- Exploded views
- Diverging perspective
- Topological drawing
- Best local view
- Cubism



## *The viewpoint is unique*

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- Impossibility to resolve ambiguity
- Generic/accidental view



Limitations

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## *The viewpoint is unique*

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- Impossibility to resolve ambiguity
- Generic/accidental view



Limitations

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## *Accidental viewpoint*

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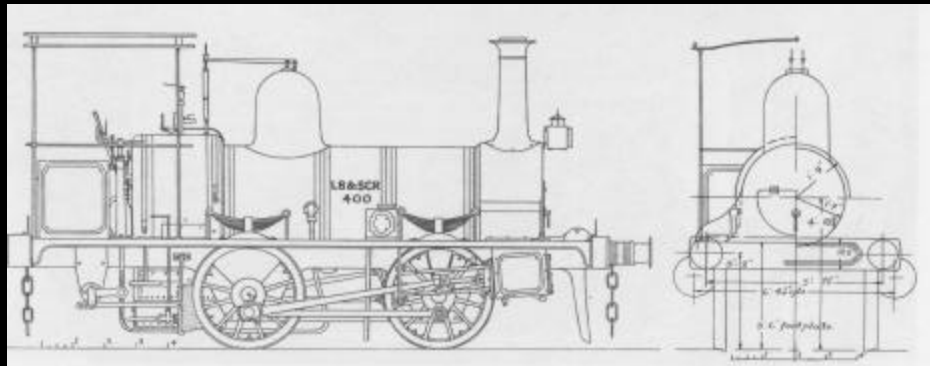
Limitations

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## *Multiple views*

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- Engineering



Limitations

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## *Mirrors*

- Mary Cassatt



Limitations

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## *Mirrors*

- Velasquez

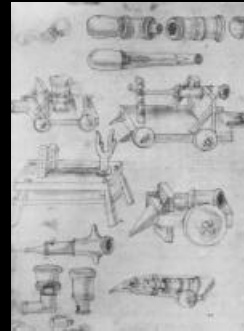
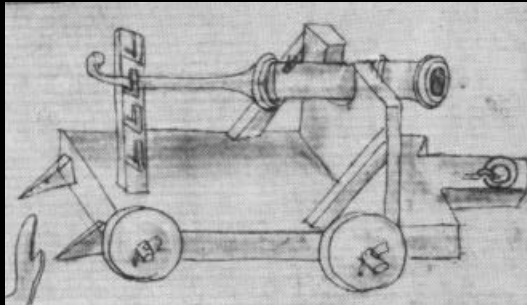
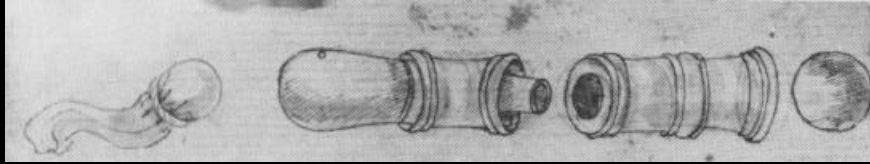


Limitations

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## *Exploded views*

- Tacolla, 1433

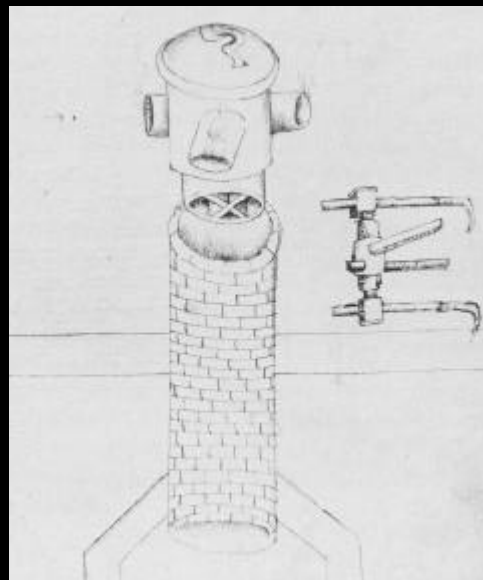


Limitations

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## *Divergent perspective*

- Tacolla, 1427



Limitations

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## *Divergent perspective*

- Bifolio from a Gospel book:  
Mark  
Byzantin, 15<sup>th</sup> century



Limitations

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## *Divergent perspective*

- Andrei Rublev  
*The Trinity*  
1408-1425



Limitations

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## *Divergent perspective*

- Hasadera Enji

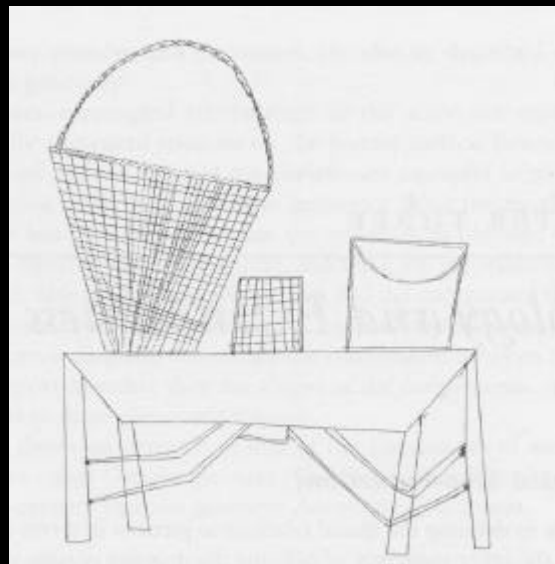


Limitations

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## *Divergent perspective*

- 15 year old girl



Limitations

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## *Divergent Perspective*

- David Hockney  
*Chair*



Limitations

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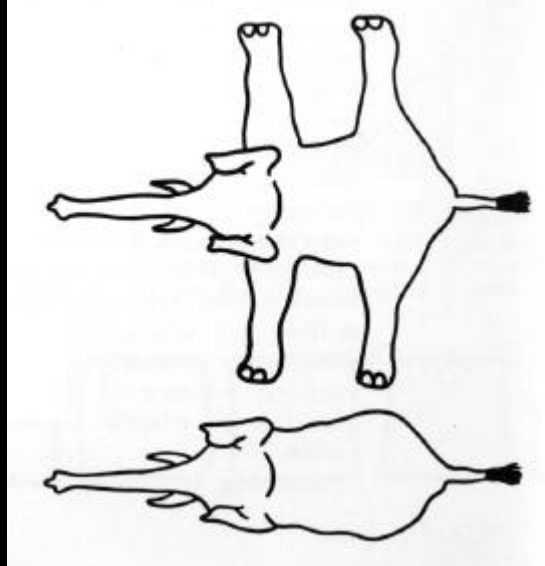
## *Double profile view*



Limitations

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## *What I see/What I know*



Limitations

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## *Multi-perspective*

- Umberto Boccioni  
*The Street Enters the House*



Limitations

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## Multi-Perspective

- M. C. Escher  
*Other World*  
1947



Limitations

33

## Multi-perspective

- David Hockney  
*Mother*



Limitations

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## Cubism

- Picasso  
*Portrait of a Woman*



Limitations

35

## Cubism



Limitations

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*Best local view*



Limitations

37

*Best local view*



Limitations

38

## *Best local view*



Limitations

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## *The image is finite, it has a frame*

- Window
- Verticals & frame
- Distortion compensation
- Cropping
- Panorama

Limitations

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## *The Picture as a Window*

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- Durer



Limitations

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## *The Picture as a Window*

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Limitations

42

## *The Picture as a Window*

- Magritte



Limitations

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## *Window*



Limitations

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## Window

- Mucha
- Interaction 2D/3D



Limitations

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## Window

- Gustav Klimt  
*Judith*



Limitations

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## *Verticals and Horizontals*

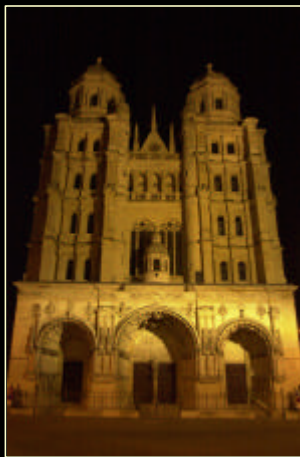
- Burnes Jones  
*Pygmalion*



Limitations

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## *Verticals and Horizontals*



Limitations



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## *Distortion compensation*



Limitations

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## *Framing*

- Hiroshige,  
*Car Wheel  
at the Sea Shore*  
1857



Limitations

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## *Framing*

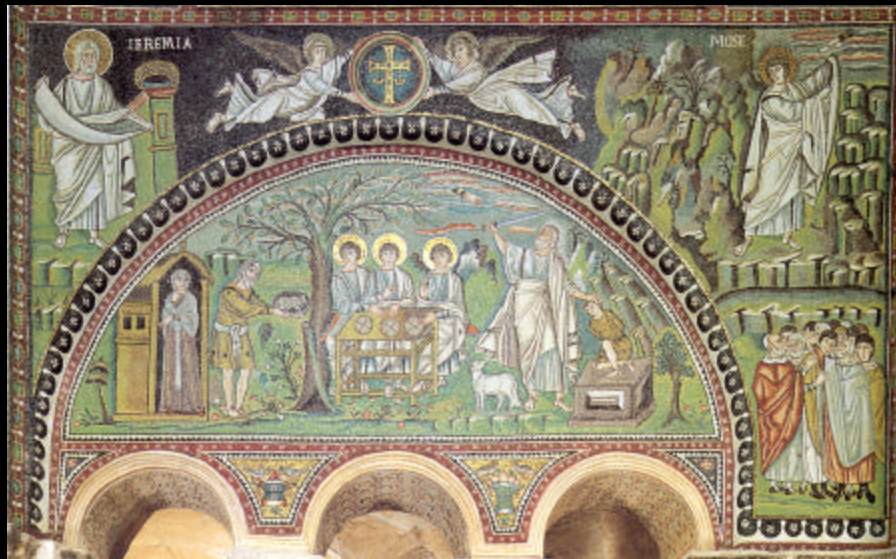
- Degas



Limitations

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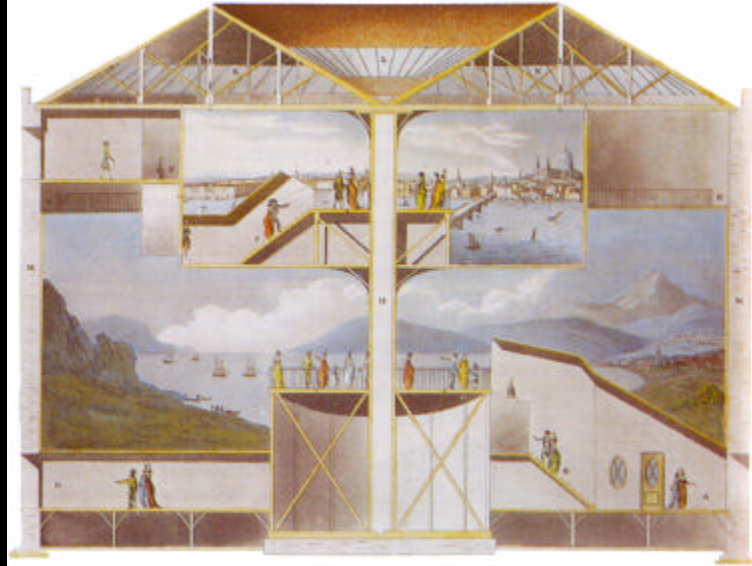
## *Absence of Framing*



Limitations

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## *Panorama*



Limitations

53

## *Modern Panorama*

- QuickTime VR
- IMAX



Limitations

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## *Hand Rolls*

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Limitations

55

## *Negative space & balance*

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- Rembrandt  
*Self Portrait*



Limitations

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## *Cropping*

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- Botticelli



Limitations

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## *Cropping*

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Limitations

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## *Different format*

- Jean Cocteau  
*Gabier de Vigie*



Limitations

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