

# Media Art: Art+Tech convergence

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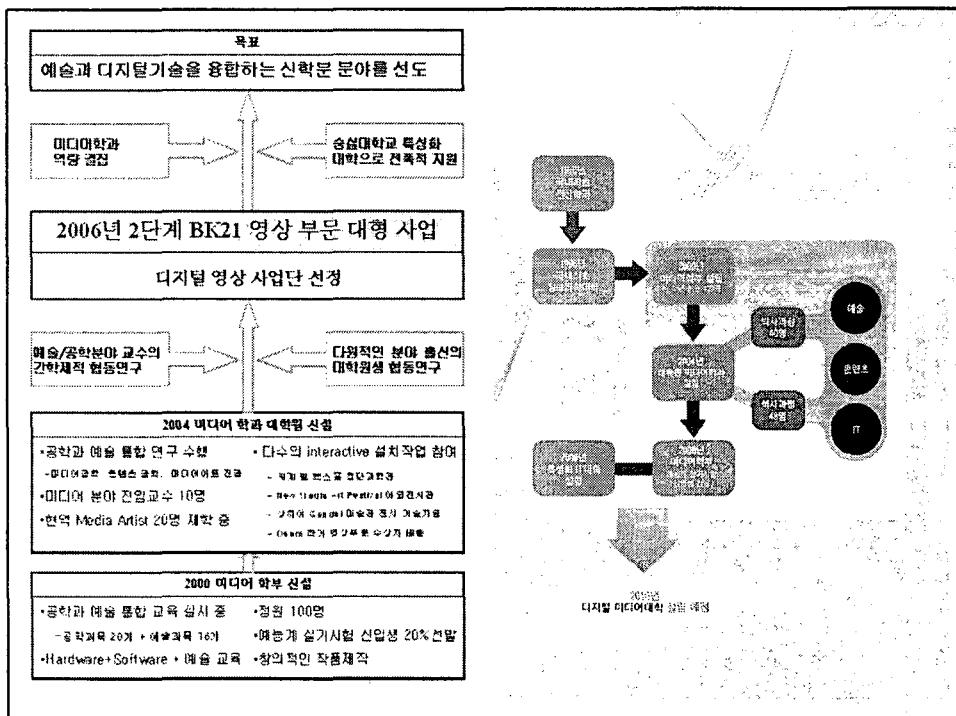
## Media Art

introduction

1. art and media
2. aesthetic bases of digital media: fine art
3. art + technology convergence
4. technology for media art
5. tools for media art
6. what is important for convergence?
7. why are we doing it?

# introduction

- School of Media, Soongsil University
- 2000 established
- 2004 graduate school opened
- current: 450 undergraduates, 90 graduates (ms/phd)
- 10 professors (graphics, vision, HCI, D-TV, multimedia, media art, media aesthetics, design)
- 2006 BK21 Digital Media Division



**사업 비전 및 목표**

- Art
- Technology

**BK 21**

**Art + Tech convergence**

**Media Art (영상매체예술)**

예술성과 기술성 겸비

**Technology (과학기술)**

**Art + Tech Convergence**

**Digital convergence**

**Computer**

**TV broadcasting**

**Cinema**

2010

1990

1970

1950

1930

1910

1890

1870

1850

1830

1810

1790

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770

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510

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470

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430

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230

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190

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150

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110

90

70

50

30

10

1000

900

800

700

600

500

400

300


200

100


0

# 1. art and media

1) art medium: natural pigment, stone, ashes  
: art as wishes – artist as shaman(pre-historic)




*Venus of Willendorf*, c. 30,000 – 25,000 BCE, limestone, height 11 cm, found in lower Austria, now in Naturhistorisches Museum, Vienna

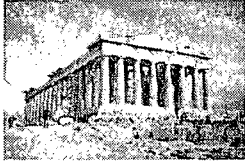


Cro-Magnon peoples, Cave at Lascaux, France, "*Hall of Bulls*", 15,000–13,000 BCE, "fresco" and "found relief" includes paintings of bulls, horses, deer, bison, etc.

Chauvet Cave. A pride of lions hunt bison, one of the rarest scenes ever found in Paleolithic art. Ca. 30,000 B.C.



2) art medium: architecture, sculpture, drawing  
 : art as encapsulation – artist as encapsulator(Greek)



Parthenon, Greece, Athens 447-432 B. C.

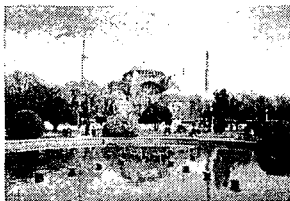


Winged Victory of Samothrace.  
 c. 190 BC. Louvre



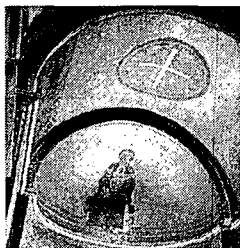
Venus de Milo  
 Parian marble, h 2.02 m (6 1/2 ft)  
 Found at Milo  
 130-120 BC  
 Musee du Louvre, Paris

3) art medium: wall painting, sculpture  
 : art as description – artist as describer (middle age)



532-537 A.D. Aya Sophia

Personification of Ktisis  
 (Foundation), first half of 6th  
 century, Byzantine Mosaic,  
 marble, glass; 59 1/2 x 78 5/8  
 x 1 in. (151.1 x 199.7 x 2.5 cm)



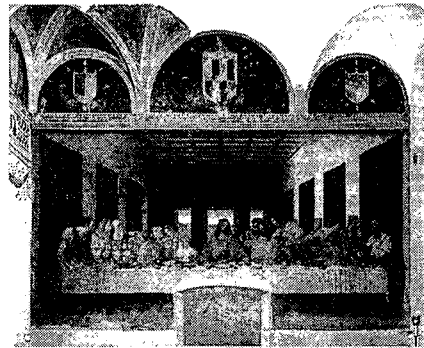
The Theotokos and Child (replacing a cross) 787-97 and  
 11th cent. Apse mosaic. St Sophia, Thessaloniki.

4) art medium: painting, sculpture

: art as craft – artist as named crafter(renaissance)



The Arnolfini Marriage, 1434, oil on panel.  
National Gallery at London



Santa Maria delle Grazie, Milan  
*The Last Supper*, 1498 (post-restoration)  
Leonardo da Vinci (Italian, 1452–1519)

4) art medium: painting, sculpture

: art as translation – artist as translator (Baroque)

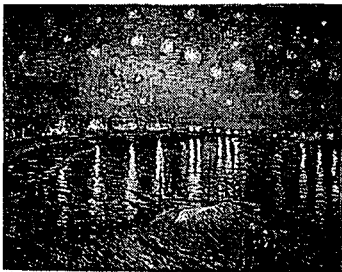


The Anatomy Lecture of Dr. Nicolaes Tulp 1632  
Oil on canvas, 169,5 x 216,5 cm  
Mauritshuis, The Hague

Sampling Officials of the Drapers' Guild  
1662 Oil on canvas, 191,5 x 279 cm  
Rijksmuseum, Amsterdam



5) art medium: painting, sculpture, photography  
 : art as representation – artist as representer (pre-modern)



*Starry Night over the Rhone*  
 1888 72.5 x 92 cm

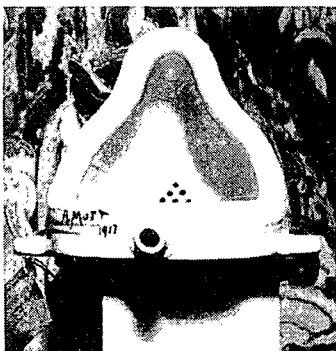


Olympia. 1863. oil on canvas, Musée d'Orsay,  
 Paris

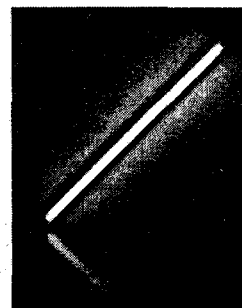
6) art medium: everything including non-object

: art as discovery – artist as discoverer (modern/avant-garde/postmodern)

: beginning with media art



Marcel Duchamp. *Fountain*, 1917. Photo  
 Alfred Stieglitz, 1917  
 © 2001 Succession Marcel Duchamp,  
 ARS, N.Y. / ADAGP, Paris.

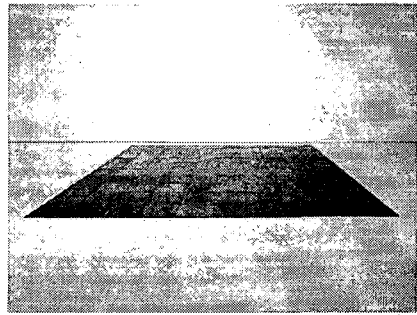


Dan Flavin  
*Diagonal of May 25, 1963, 1963*  
 Warm white fluorescent light  
 Edition 2/3  
 96 inches (243.8)

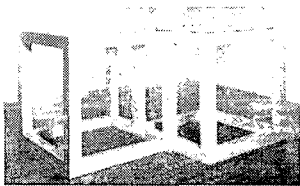
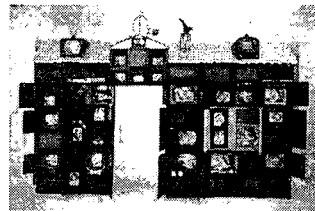
© 2000 Estate of Dan Flavin / Art Rights Society (ARS), New York



Donald Judd, *Untitled*, 1969. Copper, ten units, 9 x 40 x 31 inches each, with 9-inch intervals; 170 x 40 x 31 inches overall. Solomon R. Guggenheim Museum, Panza Collection. 91.3713.a-j. © Donald Judd Estate/Licensed by VAGA, New York, NY.

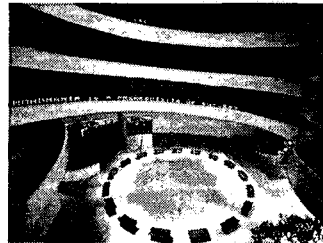


Carl Andre, *10 x 10 Altstadt Copper Square*, Düsseldorf, 1967. Copper, 100 units, 3/16 x 19 11/16 x 19 11/16 inches each; 3/16 x 197 x 197 inches overall. Solomon R. Guggenheim Museum, Panza Collection. 91.3673.a-vvvv. © Carl Andre/Licensed by VAGA, New York, NY.

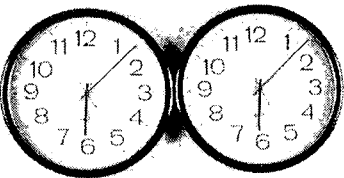


Sol LeWitt, *Two Open Modular Cubes/Half-Off*, 1972, enameled aluminum, 160.0 x 305.4 x 233.0 cm, Tate Gallery, London.

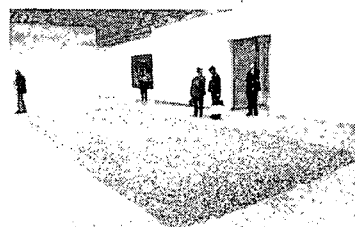
Jenny Holzer, Installation view, Solomon R. Guggenheim Museum, New York, 1990



Felix Gonzalez-Torres, *Perfect Lovers*, 1987-1990



Felix Gonzalez-Torres, *Untitled (Placebo)*, 1993





Marina Abramovic *Rhythm 0* 1974



Marina Abramovic 4 hour Amsterdam:  
Red- light district/ De Apple Gallery, 1975

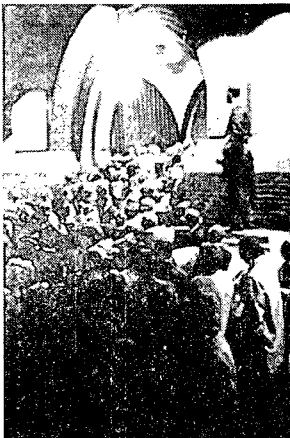


Bill Viola *The Crossing*, 1996  
Video/sound installation

Wrapped Fountain, Piazza Mercato; Soletto,  
Italy  
1968 Christo and Jeanne-Claude



## 6) art medium: technology : collaboration

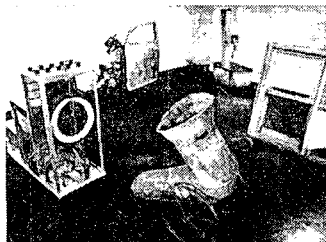


### Practical Beginning:

"An excited crowd poured into the Armory on opening night. More than 10,000 people attended the 9 Evenings of Theatre and Engineering. We estimated that the 30 engineers who participated in the project, put in 8,500 man-hours of work."

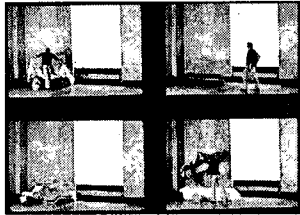
### 9 Evenings of Theatre and Engineering <1966>

@from October 13 to October 23, 1966 at the 69th regiment Armory on Lexington Avenue in New York City.

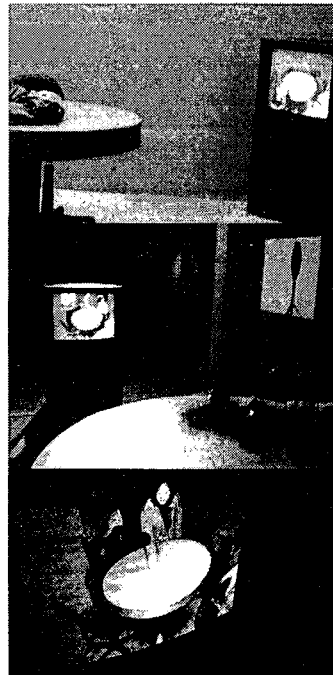
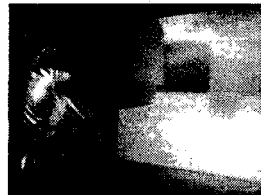


Billy Kliver and Robert  
Rauschenberg  
*Oracle*, 1965





Jeffrey Shaw,  
«Viewpoint», 1975



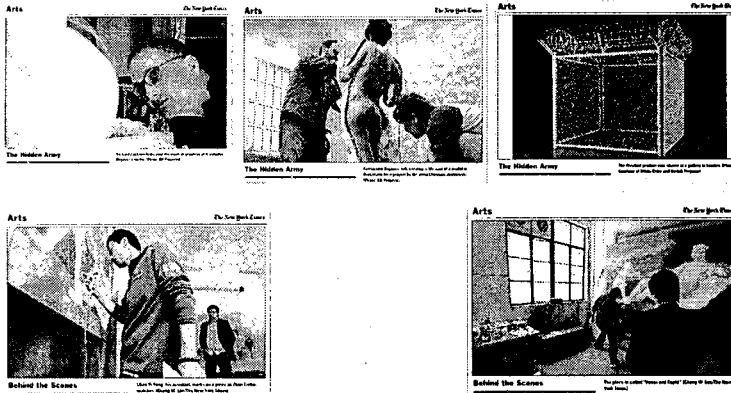
Paul Sermon, Telematic Dreaming, 1992

1. interactive
2. participatory: beyond purely mental event
3. dynamic
4. customizable

\* watching clips of ssu media w/F15H(undergraduate's)

## 2. aesthetic bases of digital media: fine art and liberal arts

### 1) subversive paradigm of fine art: artwork without artist



### 2) new episteme for the future : creating discourses on human

Donna Haraway : cyborg

N. Katherine Hayles : posthuman

Pierre Levy : collective intelligence

Paul Virilio : aesthetics of disappearance

Lev Manovich : language of new media

Hans Belting : image/body/medium

Vilem Flusser: communication

.....



### 3) deviation of texts on art

: beyond art history and aesthetics: expecting debates

- |  |  |
|--|--|
| 1. aesthetic object: non-physicality   | introductory references  |
| 2. aesthetic experience: interactivity | -multimedia: from Wagner to virtual reality                                  |
| - real and virtual                     | -reading digital culture   |
| 3. authorship: artist and engineer     | -Thames & Hudson's world of art (digital art, internet art, new media in art |
| - subjectivity                         | -information arts  |
| 4. juxtaposition : art and technology  | -New Philosophy for New Media  |
| - mind and body                        |  |
| - commercial and fine                  |  |

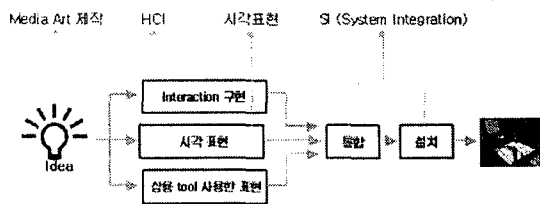
## 3. art + technology convergence

- ZKM (center for media art) : Karlsruhe, Germany
- Ars Electronica : Linz, Austria
  
- media lab (MIT), NYU ITP : U.S.
- University of Weimar (Bauhaus) : Germany
  
- open source group for art: [processing.org](http://processing.org)
  
- art+com : Germany
- spot installation : Germany
  
- \* watching clips

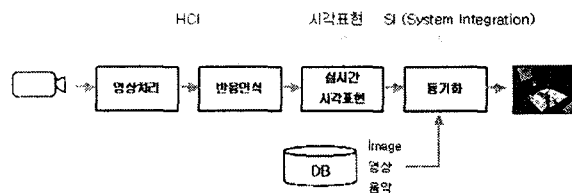
## 4. technology for media art

- multimedia
- display
- graphics
- vision
- HCI
- devices

### production of media art



### operation of media art



## 1) multimedia

1. fundamentals for video art
2. video editing
3. special video effects
4. video encoding and media
  - computer files (MPEG, AVI)
  - VHS
  - DVD
5. sound
6. music

## 2) display

1. computer monitor
2. TV (LCD, PDP)
3. projector
4. LED
5. large screen
  - multiple projectors
  - multivision

### 3) graphics

1. 2D graphics
2. photorealistic rendering
3. real time rendering
  - fundamentals for interactive arts
  - similar to game programming
4. compositing of video and graphics

### 4) vision

1. fundamentals for interactive arts
2. motion sensor
3. object recognition and interaction
4. image processing
  - techniques for real time video effects

## 5) HCI (human computer interaction)

1. human centered interaction(?)
2. interaction between audience and artwork
3. cognitive engineering

## 6) devices

1. motion capture sensor
  - optical / magnetic
  - bend / pressure
2. high definition display
3. high quality camera
4. HMD
5. stereo display
6. various sensory
  - tactile / haptic
  - smell / taste

## 5. tools for media arts

- maya / 3d studio max
- max/msp+jitter
- processing.org
- opengl / directx
- opencv

## 6. what is important for convergence

- co-operation
- understanding of the counterpart
- discussion
- programming artist
  - back to Leonardo da Vinci
- still long way to go



## 7. why are we doing it?

- interesting
- new fusion field
- more easier and more interactive art
  - wider audience
- possibility for business
  - production
  - installation / maintenance
  - architecture
  - performing art