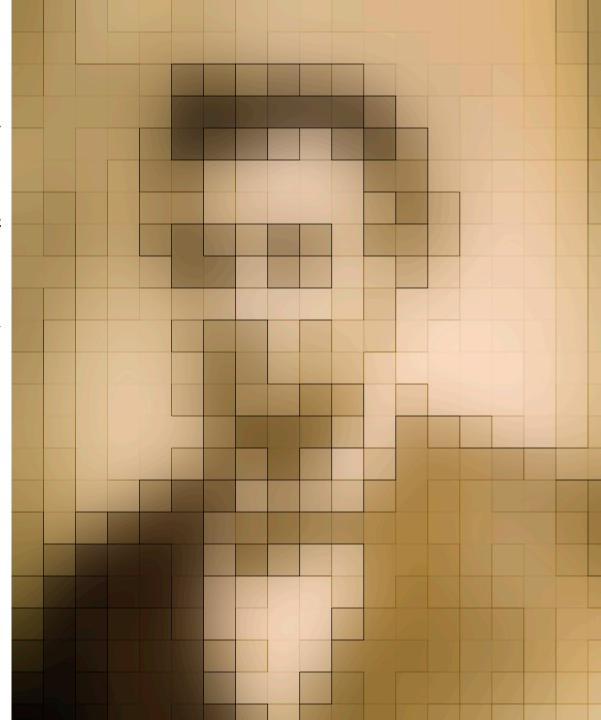
The Discrete
Nature of the
Pixel



- How can we reproduce what we see?
- What form will that take?
- Clumping silver reproduces the difference between light and dark which in turn produces a simulation of a 3-D space.
- The first photographic print dates to ca.1826 by Joseph Nicéphore Niépce



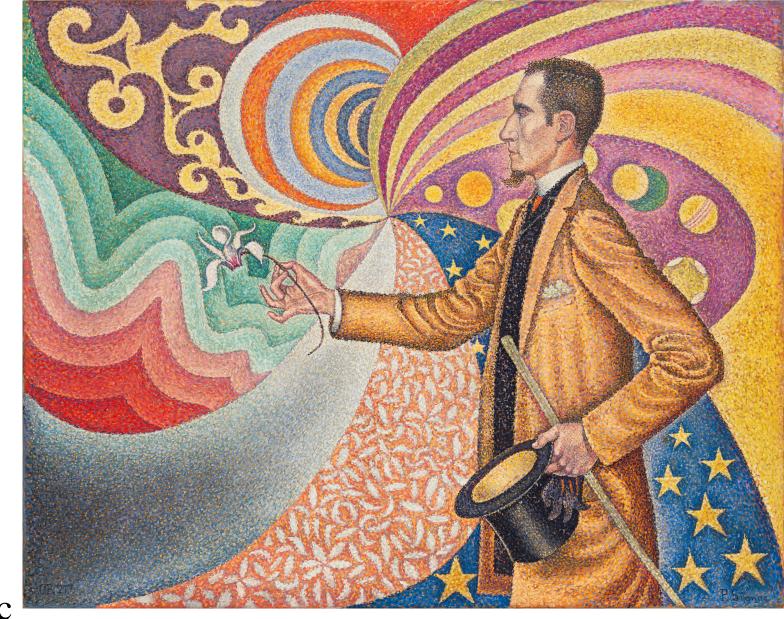
Film Grain

## Painting

- Around the same time as the infancy of photography, Artists were looking towards science for inspiration.
- Michel Chevreul a scientist. His writings had an effect on the neoimpressionists
- 1854 "The principles of harmony and contrast of colours"

 Chevreul noticed that in weaving, threads next to each other would create new perceptions of colors and tones.





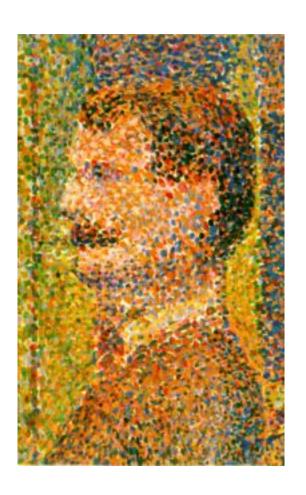
Paul Signac

"Félix Fénéon"

1890

## Neo-Impressionism

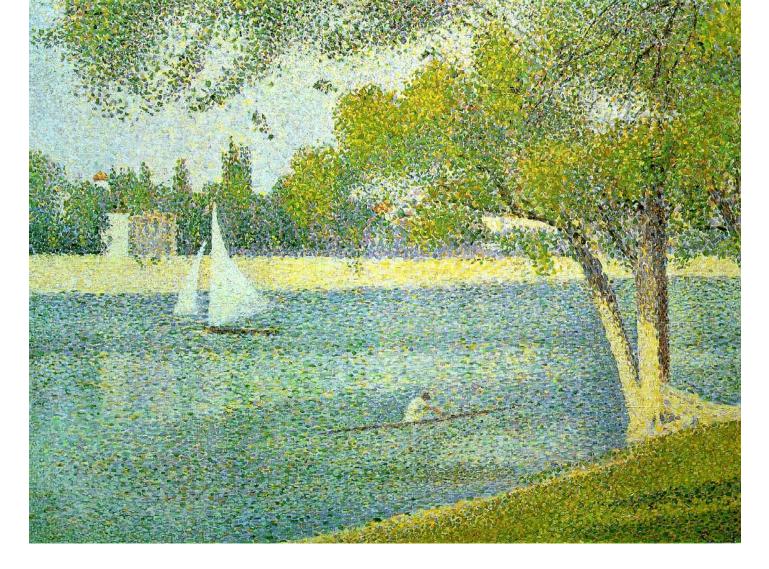
- Georges Seurat and Paul Signac
- A scientific approach
- Large scale paintings
- In studio
- "pointillism"
- 1886-1891 (peak years)





#### Georges Seurat

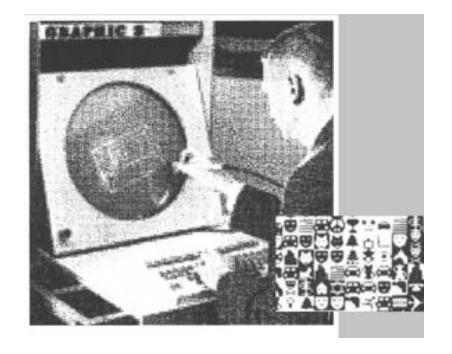
"A Sunday Afternoon on the Island of La Grande Jatte" 1884 - 1886



Georges Seurat
"The Seine at Le Grande Jatte"
1888

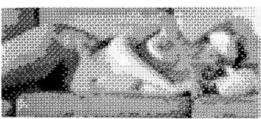
# Digital

- Bell Labs 1960's
- Researchers began
   working on new ways
   to visualize
   information using
   computers.

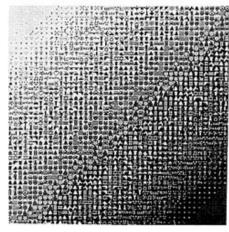


### Leon Harmon / Ken Knowlton

- Used dots and symbols to recreate the tonal structure of an image
- Exhibited the "reclining nude" in the first computer art shows in 1968:
- The Machine as Seen at the End of the Mechanical Age" @ the Museum of Modern Art

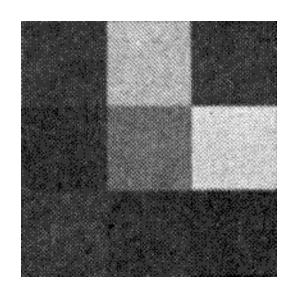


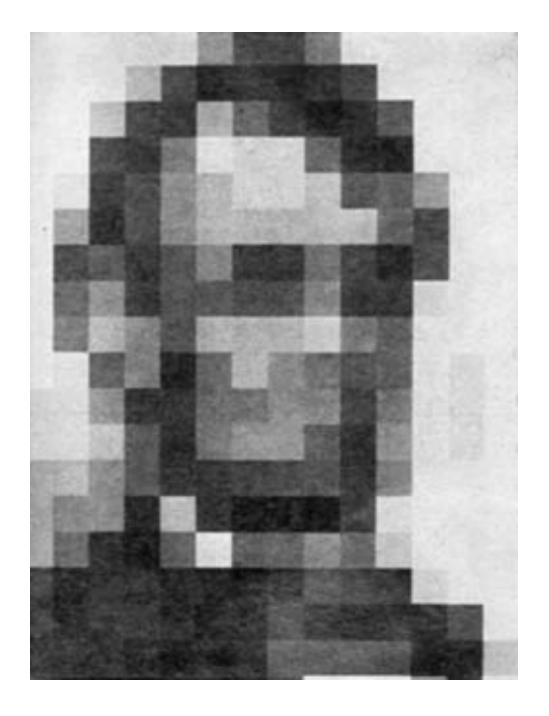




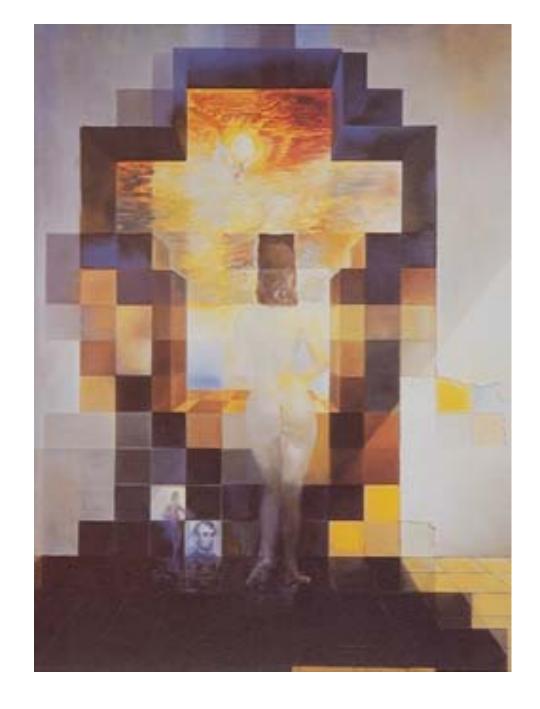
### Leon Harmon

- 1973, wrote: "The Recognition of Faces" In Scientific America
- At what point in resolution are faces still recognizable?

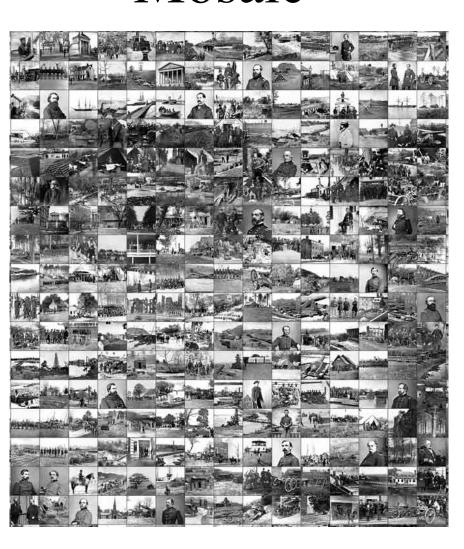




- Salvador Dali responded to this with his own interpretation:
- "Gala Contemplating the Mediterranean Sea which at a distance of 20 meters is transformed into the portrait of Abraham Lincoln (Homage to Rothko)" - 1976

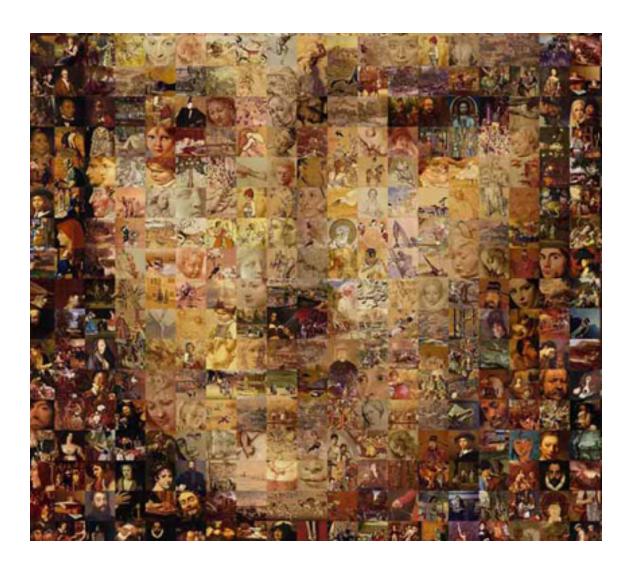


# Photo Mosaic





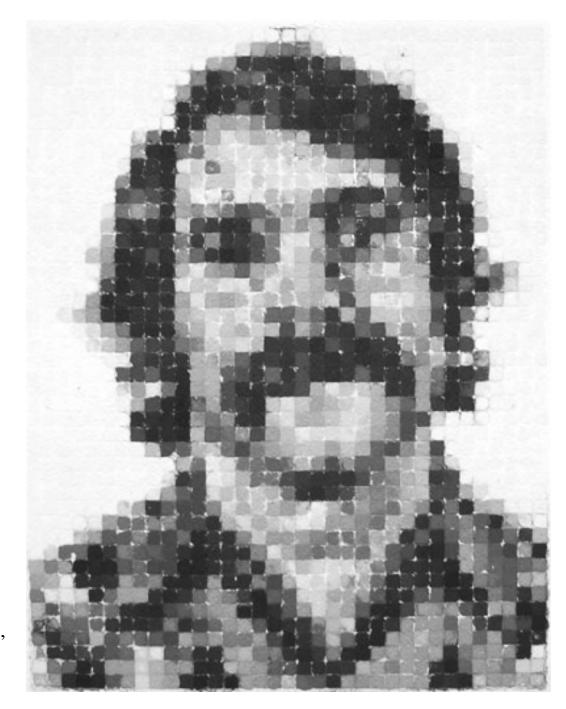
# Photo Mosaic



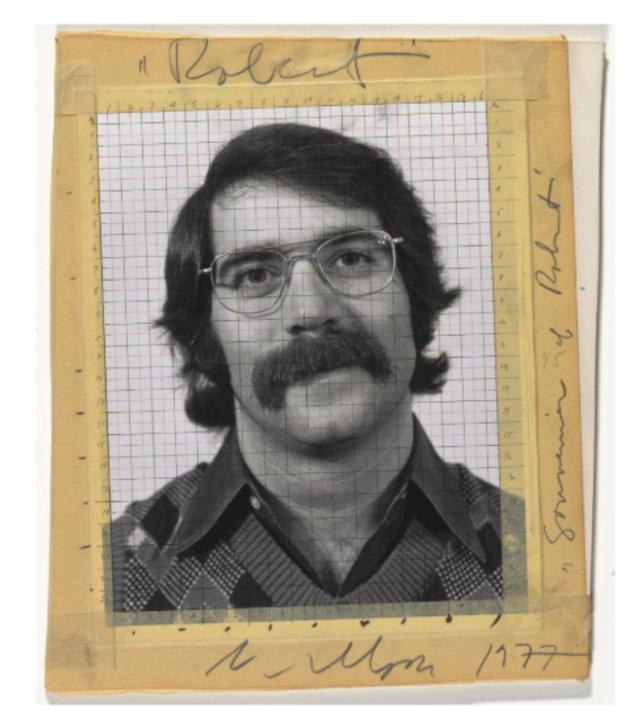
### Chuck Close

- Drawing and Painting
- "photo-realism"
- Working with the grid
- Huge scale bringing attention to resolution.

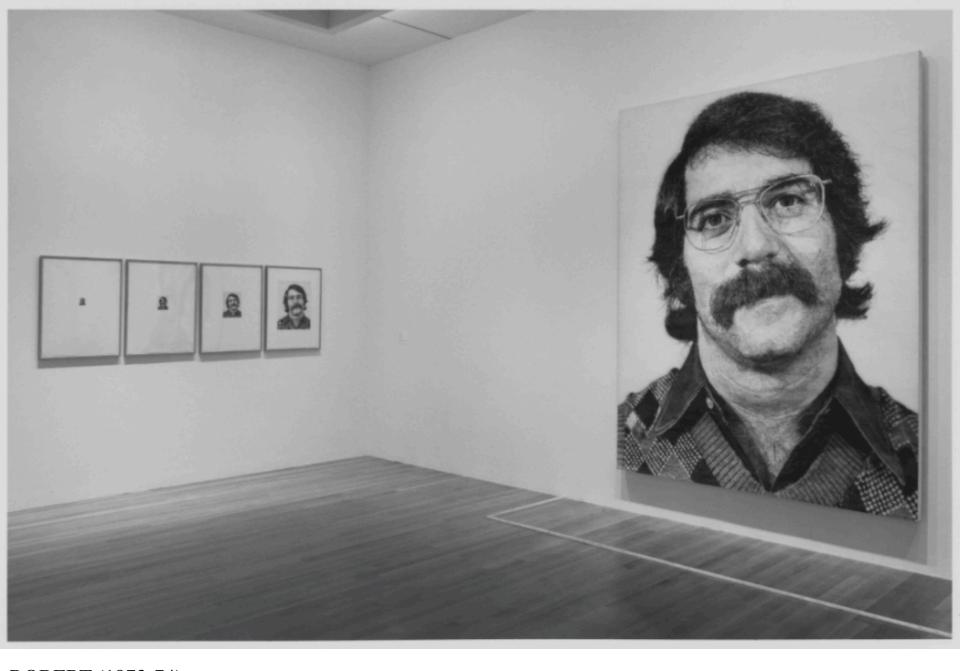




ROBERT, I (BUTLER INSTITUTE 26) , 1982 16.5" x 12.9"



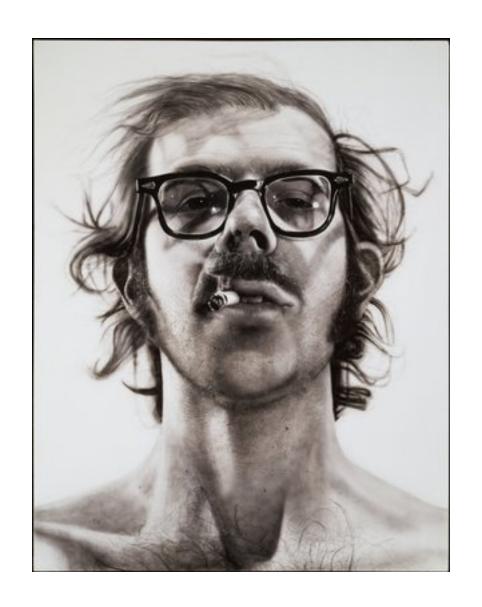
ROBERT 1977 12" x 10.5"



ROBERT (1973-74) Installation View



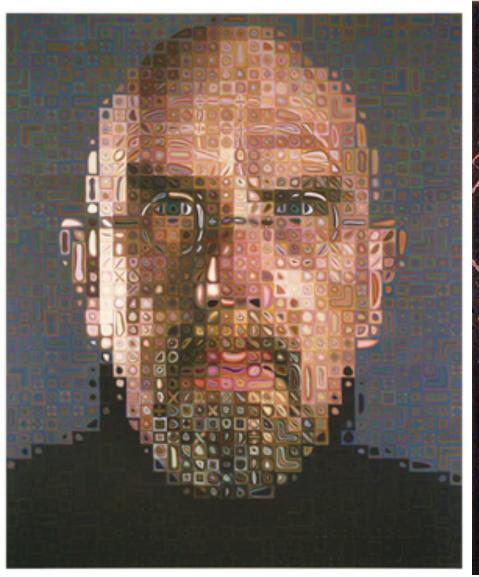
Frank, 1969, 108" x 84"

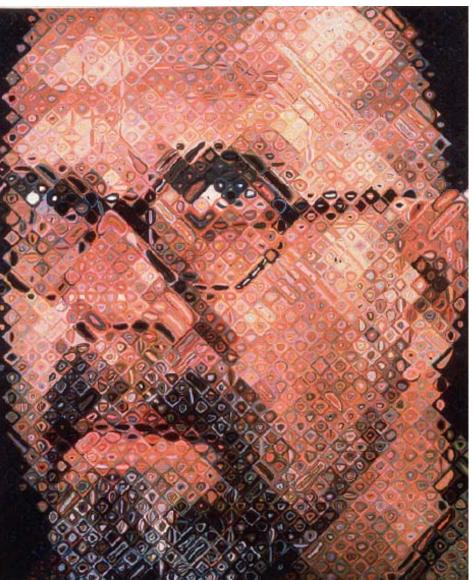


Self-Portrait, 1967-1968, 107.5" x 83.5"











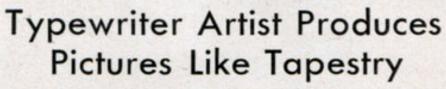
### ASCII Art / Vuk Cosic

```
11MX#X!!.
                                     MXXt!!M:~
                                    L7!+MR!:~!!
                                    !R!X!~:~X $
                                    MR9XXLX>MR$>
                                    X!$?!!~`~RB
                                    !R$8!M!:t$F
                               :eoxuM$$$$M?t$$>
                            H!!~L!R$$*$RMRMX$$&
                 .:!!::. x!!~~L!~!L!!!L~~~!@!?#*:
                XM!?M!!!!!@M!!L!:~!~!~~!LX~~!!!:~~~!
               4X?!!!!!!!~!!!!!!LL!~L!~~!!!tt!L!~~!~!
               XXXX!L!!!L~L~!!!!~X!~~~"!~!X!~L~~ ~!!!!
               '$R!!~~:L ~!!!!X!W!~~~~:!!!!~~ !::!M!X!
                8RX!!'?!~~~~!!#L!~>~:!!X!~!~ 'XR!!!>
               d$X!!~:!!!~ ~!!L~~!XXX!L!:~`~:!XM!!:!
              !XM!!!> !!!!~ ~~ ~~!!~L!!!!!!!!!!!!!!!!!
            .X$R!X!!~ !X!X ~ `!!!:!!!!!~!!!~!UMXR!!X
                                 '~!LM%:~:X!!!.~~~#RMM~
            BSF.MSKL> X@XX!:
            9R!X$$$!!~M$X$!!:: '~:!!!!~~~XM8#NH*!~!?!!!:x
            `!!$$$$X!L ?!MWM!!!:
                                      ~!!!!!!!!!L ~ ~X
            `!M$$$$XX! `!!!#*M!!:
                                      L~:!~L!!!!:~
            !!M$$$!X$&! ~tUiL~!X!!!!:!:~ '~~~L~L
                                                       ~~L!~~~ LXWx.
           `!!$$$M$W8$B!L~~~~!~~?MMM!X!!~~::: '~
           !!!$$BM8B$R@$X! ~~!X!!LM8$$XXXXX!!!!~~L!!!!!!::L: :~
          '!!M$$RXR@$$R!R$X.:~ML~!$$$$$RM!X!X$WWW!HHHW$$M?!!~:
   ?$8$$RMM!!M$$X$M$%)!X!!#W::~~$W.~R$$$$$$$?.~ !N::~$$$R!!!!~~
   '$$$MMMM!!$$R$!9%~'M! !!$!~~!4$$k!~"##F~~~`!!!.!~M~W:$$%!~~!!:~
    M$$$BMM!M$$!XtR~ !!~!X$!:/~!$$$$$WX!~~~ X!~!!~~M!$R!E!!~~!R!~~
     #$$RMR|M$$R5R|~ '!~!9$XM|X|M$$$$$~~:!~X!~XMM `'XX!!9!:~~d$X!:
      R$$RM!M$$$BW:~~> ~~/X$8$8!!!#*M!L~~ :!F~dM!`~'~!XR!9X!!!9$X!~
       $$8MRM$$$$$$N:` ~~~$$$$$X:~~:!~ ~!!9L@R!~ ~:~~X$MXR!!!!$$!~
       'SSMMMSSRSSSSX~ ~~'SMSSSSS@X!!~L!!RSS%M~~~~~MMMMM!!!f'$!~
        $MM$$$$M$$R$RRk ~: `$M$$$$$$$$!!!X$R!X~~~:~~M!M$M!!> ?X~
        $MMM$$$XM$$$M!?W: ~~ R!!!!T**T!!!!9$M!9X~~~:$&X$?!! .. !!L:
        $$@$$RR$MM$$$H!M$!~~~~ ``!XXWW*!!!!?!!?E~!~~!!$$R!!!dM!!!~~
       :$$MX!?!$R!MRMEMMM$:~ ~: `!!!~~/L~~!!!~ X!!!~!!!$!!X@$$$$WWWUX:
                                  :~~~~!!X> ~~~~~!!~$!~?$$M$$$$F"R$Wi.
       ~!!!!!!!$M$R@R$!!?M$k:~'~:
 !:~ L!!XHT? X@X6?!~!X$$Xt!#$N!~~~!: !!!!!!!~~`~' !!X~!!~~!X$6
 L!!!!!XH?XM$$!!XXX@$$?$X!!:?$W!:L!!!~ ~`!?MX!L~ 9 L!!$!`W. ~~?$$BX
 9$$$$$$W$NW$NWWWUUUZX!!*!!!?$$W!~ ?X!!!:::!!~ 'X!~!$K!/??!::."#$k
 :$$$$$$$$$$$$$$MMM$$$RRMM$$$$MM!!$$$NX~:`!!!!HtX!!!:~ !!?W/!?x.~!!!!!.
W$$$$$$$$RRR!!MMMXMM!!!?MX$$@X!$$$$W:: `#8X!!X!!!!~ x~``!~~ ":xk.~!!!.
'RM$$$$MMMMMX$$$$RXMM!!!!!??!$$$$?M$$$$$i:~:L?#**X8WH?!!?$8!9:L$NH!~~!!!
'XMMM!!XX!?T!!!?!!!!!!!!!??!?!!T#%!!!?!MT**@!##%::~"~~;~~!!!#!!?!!!!!~~
```



#### ASCII ART / **HISTORY**

OCTOBER 1948 181



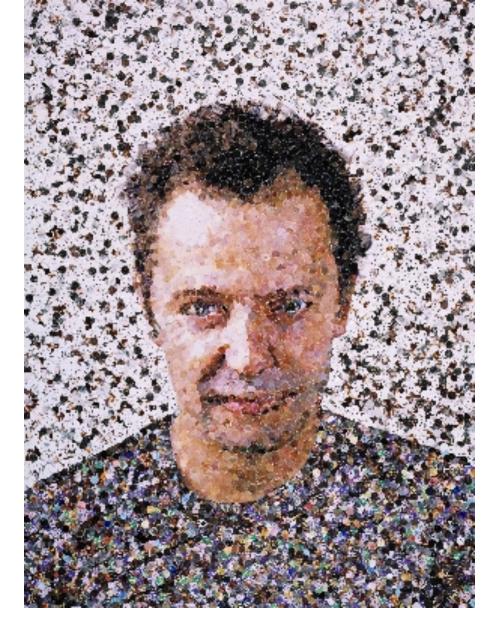
PICTURES that resemble tapestry are produced with a typewriter by Rosaire J. Belanger, a mill worker in Saco, Me. Belanger first draws a pencil sketch on a sheet of paper, then inserts it in his typewriter and fills in the sketch with various characters to produce shading and outlines. With carbon paper, he transfers the picture onto graph paper, and copies it on blank paper.



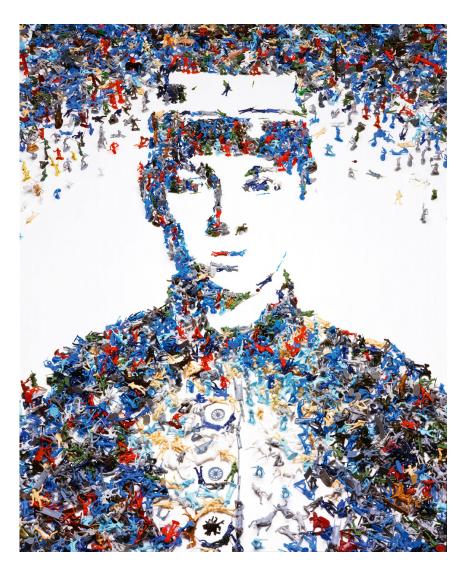
artist at the keyboard

### Vik Muniz

- Themes:
- Material
- Memory
- Popular Culture
- Resolution



Pictures of Magazines Self-portrait 2003



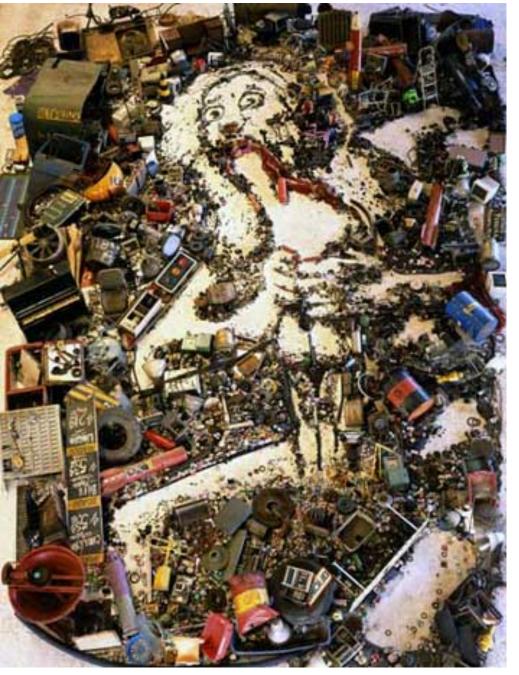


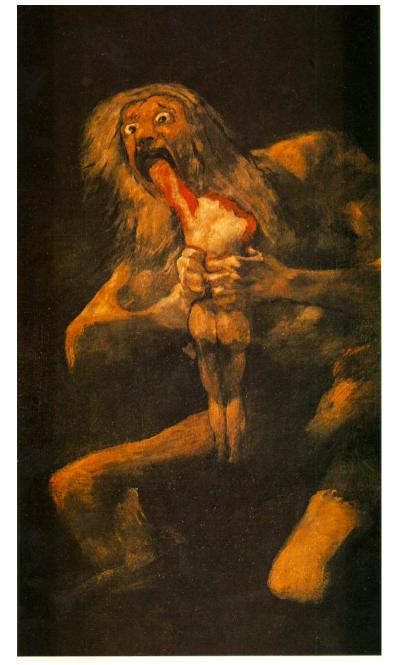
Toy Soldier 2003



Portrait of Alice Liddell, after Lewis Carroll" 2004





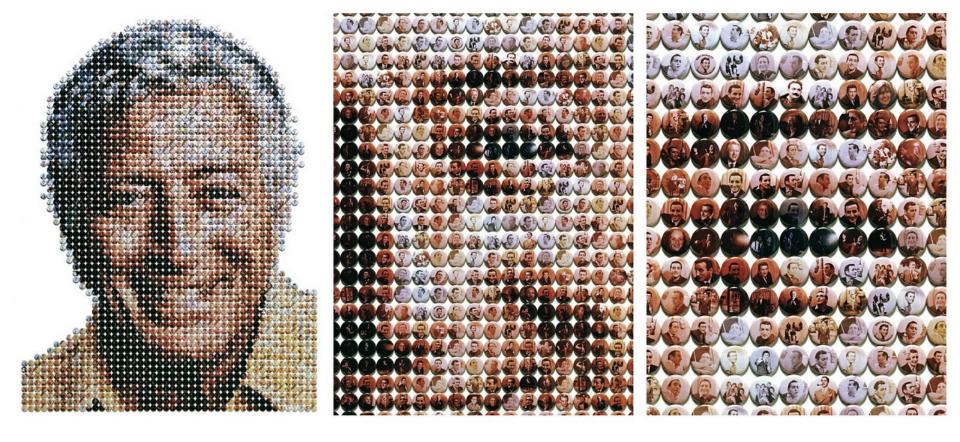


Saturn devouring one of his sons, after Goya 2005





Narcissus, after Caravaggio 2005



Ian WrightTony BennettDuets (album cover)



Chrisitan Faur Encaustic custom cast crayon





Melvin Galapon Soundwave Portrait



# interactivity

- Daniel Rozin
- Circles Mirror, 2005
- www.bitforms.com
- Laminated circles, motors, computer, video camera, custom software



