



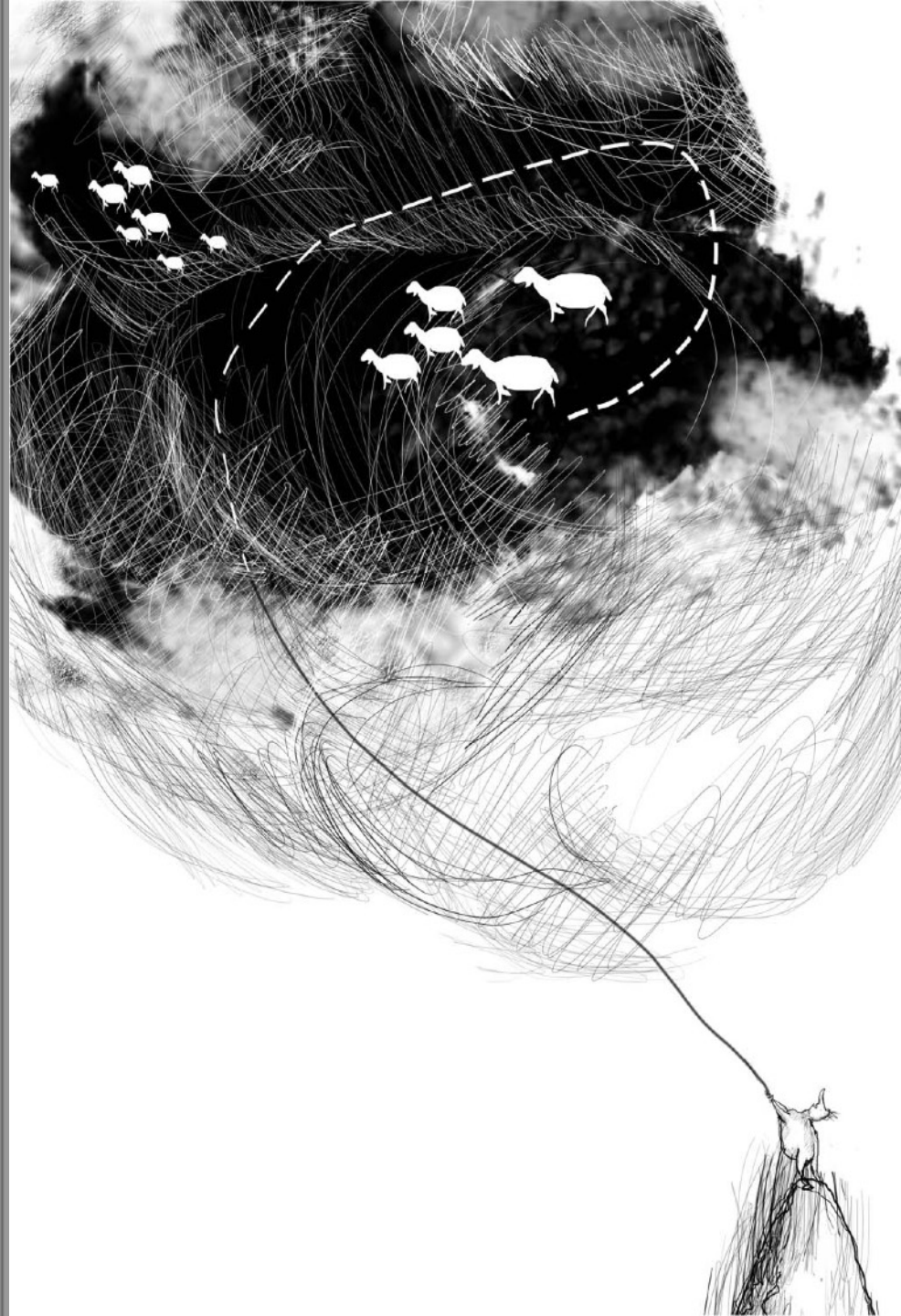
Landscape Xerography
MARIO GIACOMELLI BRUNO MUNARI

fantasy thinking

imagination sees

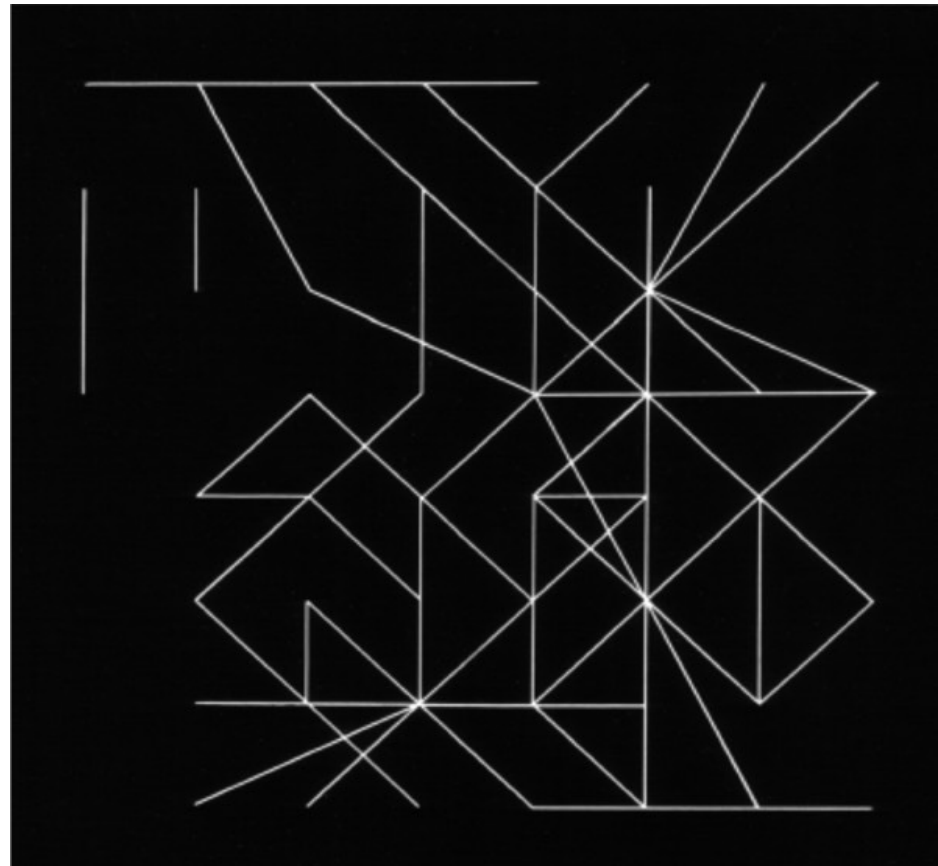
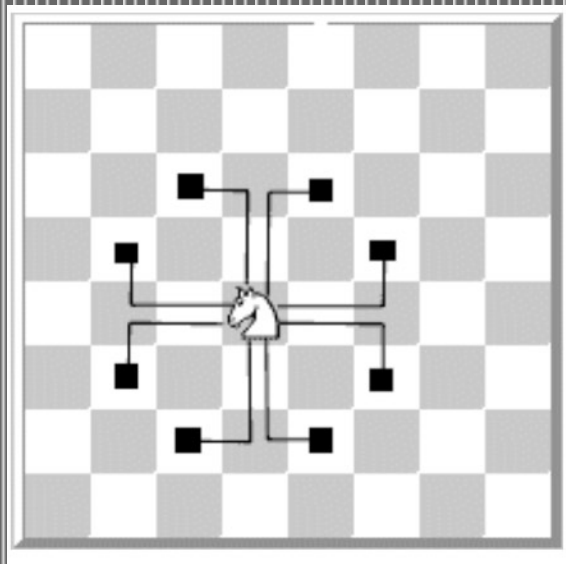
creativity ago and solves

CREATIVITY
should be stimulated,
but how?



" Such leaps and bounds do not always consist in going farther in the same direction; they accompany themselves with orientation changes, a bit the same way as the horse move in chess, which has always at its disposal various progressions but never in the same direction"

C.LEVI-STRAUSS



Shess Game
M.L.GRIMANI

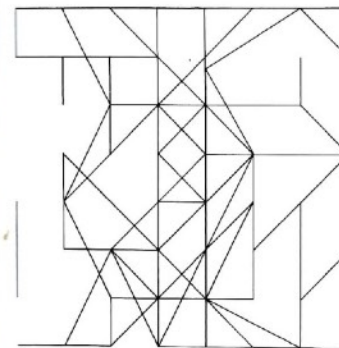
"In the horse move, I had discovered the lever of the creative moment: that "leap" for me became the visual symbol of how we can get out of the mental cages and intuitively find our own personal connections".

M.L.GRIMANI

LA SCOPERTA DEL QUADRATO

Più di trecento casi di tutto ciò
che ha una ragione di essere quadrato

a cura di Bruno Munari

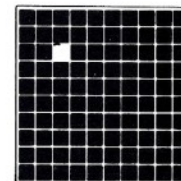
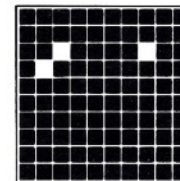
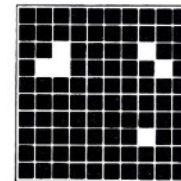
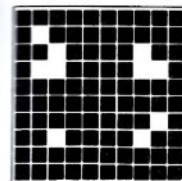
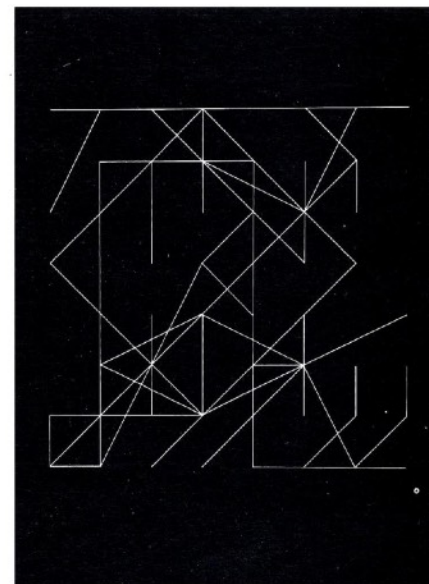


GRIMANI

Visualizzazione dei movimenti delle pedine
durante una partita a scacchi.
Disegni di M. L. Grimaldi, 1977.

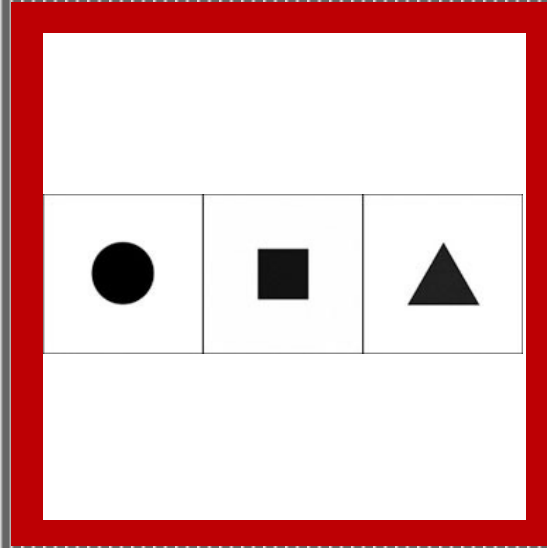
Partita a scacchi giocata a Buenos Aires
nel 1927, bianco Capablanca, nero Alekhine
vince, numero delle mosse 43.

Su fondo nero: partita giocata a Rotterdam
nel 1977, bianco Portisch vince nero Larsen
in trenta mosse.



The discovery of the Square
BRUNO MUNARI

CREATIVE DESIGN METHOD



Cultural experience of the Bauhaus school



Theoretical and operational base of the Method



Anti romantic vision of art

Anthropological conception of the art



Mobility of the creative thinking



Resistance and freedom

How does Creativity work?



Bottiglia lampo

It contains a stimulant spirit for
imagination

BRUNO MUNARI

Mobility of the creative thinking

Remote associations between different aspects
of reality

Remodulations

> experience > ability to find connections

age child - play - creativity - intelligence



MUNARIS CONCEPT

P

(Problem)

DP

(Problem Definition)

CP

(Components of the Problem)

RD

(Data collection)

AD

(Data analysis)

C

(Creativity)

MT

(Materials)

SP

(Experimentation)

M

(Model)

V

(Verification)

S

(Solution)

PLAY

propaedeutical activities of higher functions



DESIGN SCHOOL FOR CHILDREN

Pedagogical and methodological principles of the Basic Design



WORKSHOP

centrality of the experience

research not finalized, tactilism, handling, experimentation

WORKSHOP

Preparation > visual impact

Play > ? > not what but how

Presentation > unstructured Materials, tools

Technical demonstration > rules, constraints

rules + constraints = stimulating measure of the limit

Input > gameplay

Activity > exploration, experimentation

Free choice

Binding factors (rules)



> unforeseen > error > opportunity > CREATIVITY

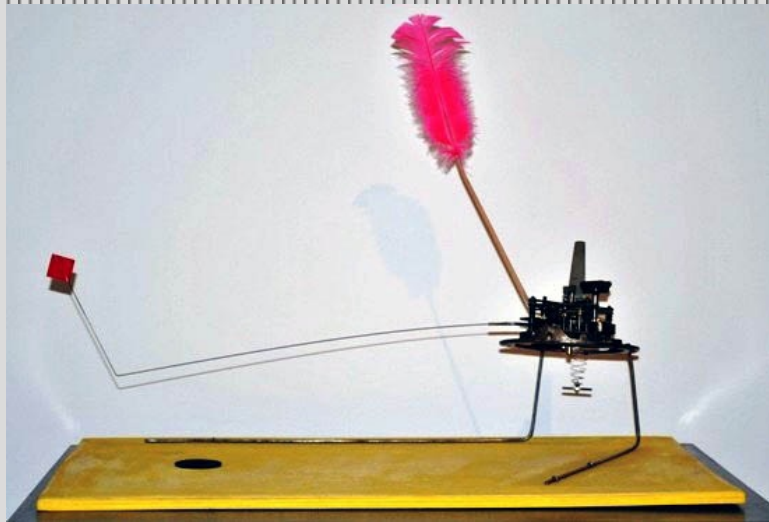
Random factors

Workshop as a field of possibilities

Method as a compass

“Doing to understand”
in the time of virtual reality





Arrythmic Machine 1951
BRUNO MUNARI



Useless Machine 1957
BRUNO MUNARI

AUGMENTED REALITY

~

QRCode - AR Tag - Beacon - Geolocalization - Video Mapping

~

experiential learning

facilitation of the research

integration of the practical dimensions (physical reality)

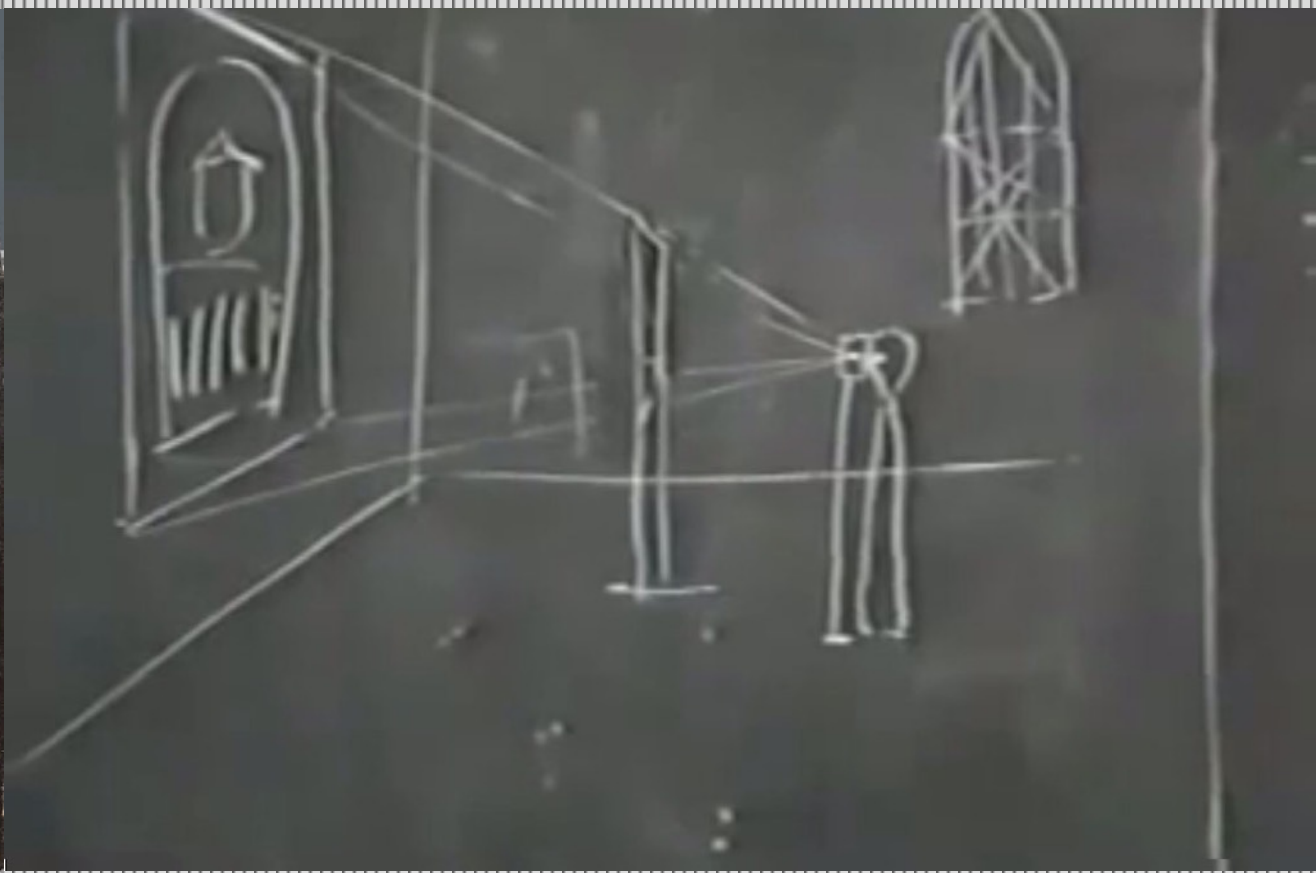
and the theoretical dimensions (virtual reality)

~

sedimentation of applied knowledge



Lo sposalizio della vergine
RAFFAELLO



Sketch
BRUNO MUNARI

P

Experiential learning - Creative use of technology

DP

AR (QRCode - AR-Book - Video Mapp.)

CP

Technical and Teaching skills

RD + AD

Previous experience > what can we learn?

C

“Giocare con l’ARte”

MT

Technological devices, Software, Hardware

SP + M + V

Experimentation + Prototype + Trial > Workshop

S

“GIOCARRE CON L'ARte”

« Qr-Code & Illegible script of unknown peoples »

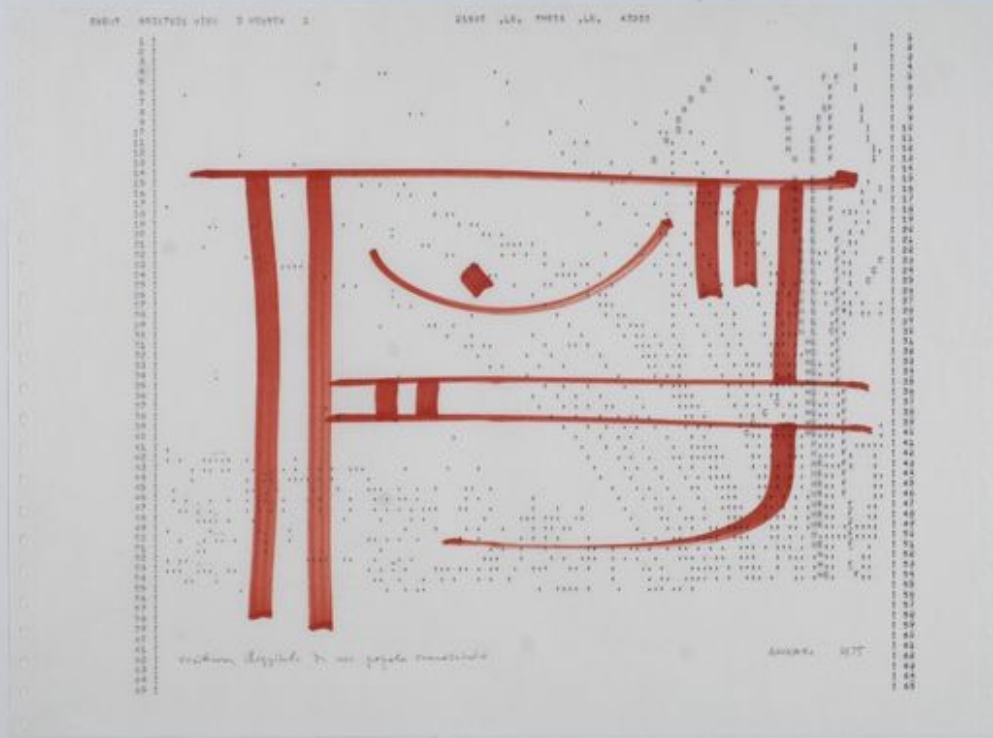
« Drifting Codes/Qr-Code Art »

« Unreadable Book and AR Book »

« POP UP - AR Book »

« Directed projections and Video Mapping »

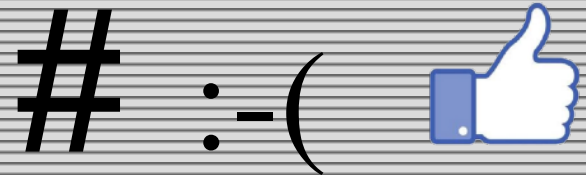




Illegible script of unknown peoples
BRUNO MUNARI

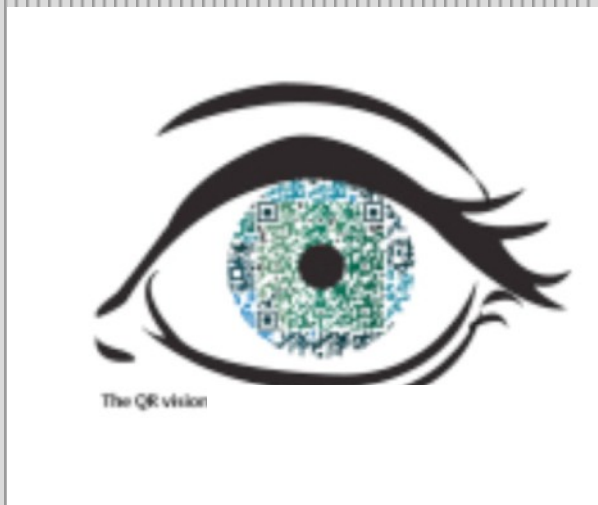
“I tried to invent other rules and to design other probable writings. Nice to see but unreadable as an encrypted printout of a computer”

QR-Code



How far can we go in the modification of
a sign, as symbol/writing, using
disruptive actions on his graphic
representation, without causing in it a
drift, a loss of meaning
or sense, right down to become
unreadable?

QR-Code



Samples of signs

v

Problem

- > what are they? Do you know someone?....(QR-Code)
what instruments can we use to read them? (Tablet,

Smartphone)

do you want to try to invent a personal alphabet?
how can we do that? What tools? Which media?

Materials

- > white papers - red papers - black papers (A4)

Instruments

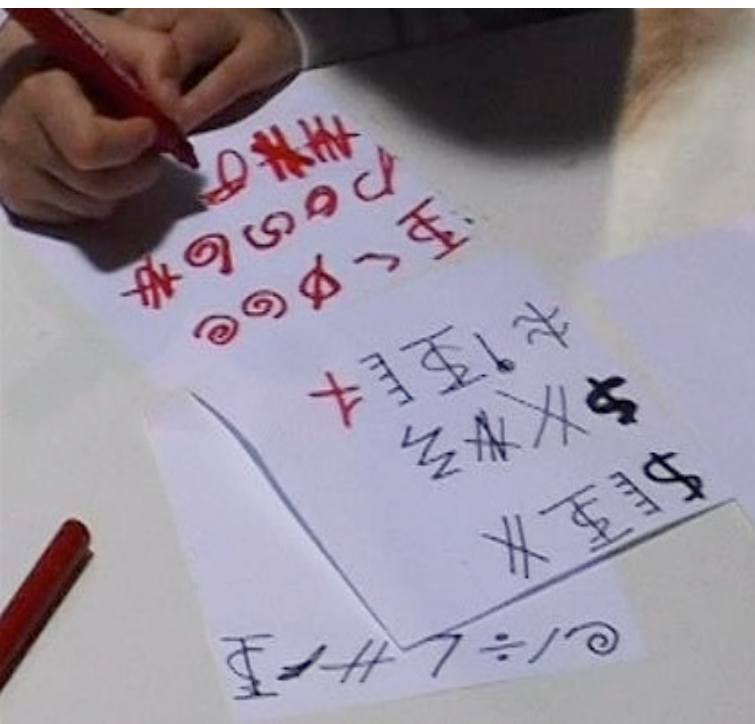
- > scissors - black and red markers - glue
hardware: tablet - smartphone
software: QR-Code generator

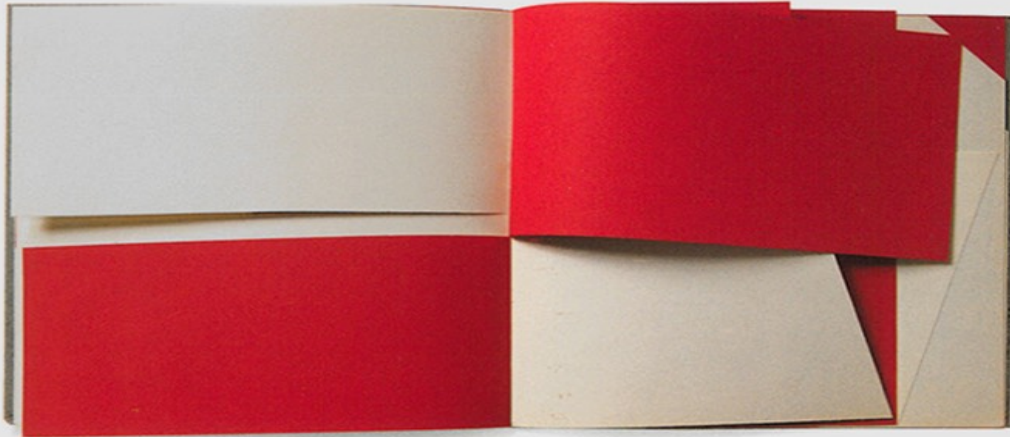
Technical

demonstration > input

WORKSHOP

Qr-Code & Illegible script of unknown peoples
Roma Museo Explora 28 marzo 2013





Unreadable Book
BRUNO MUNARI

“They should give the feeling that books are objects made so and that they contain inside a big variety of surprises. Culture is made of surprises, that is, what was unknown before”.

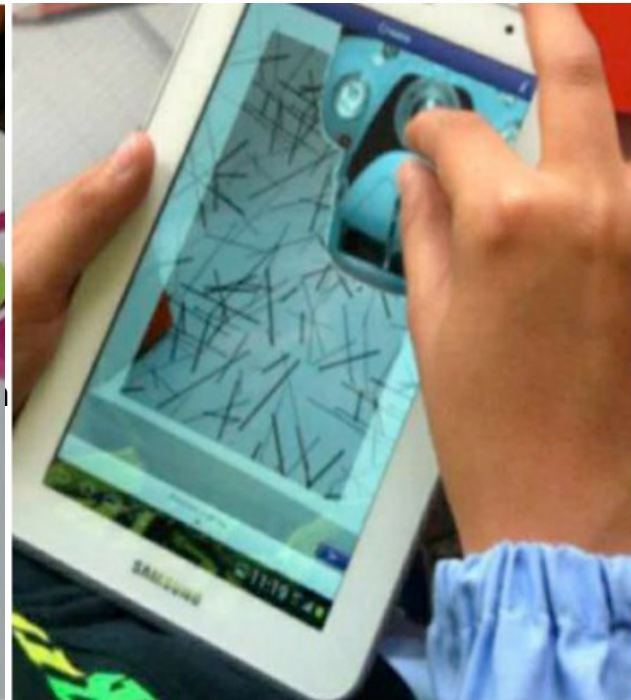
WORKSHOP

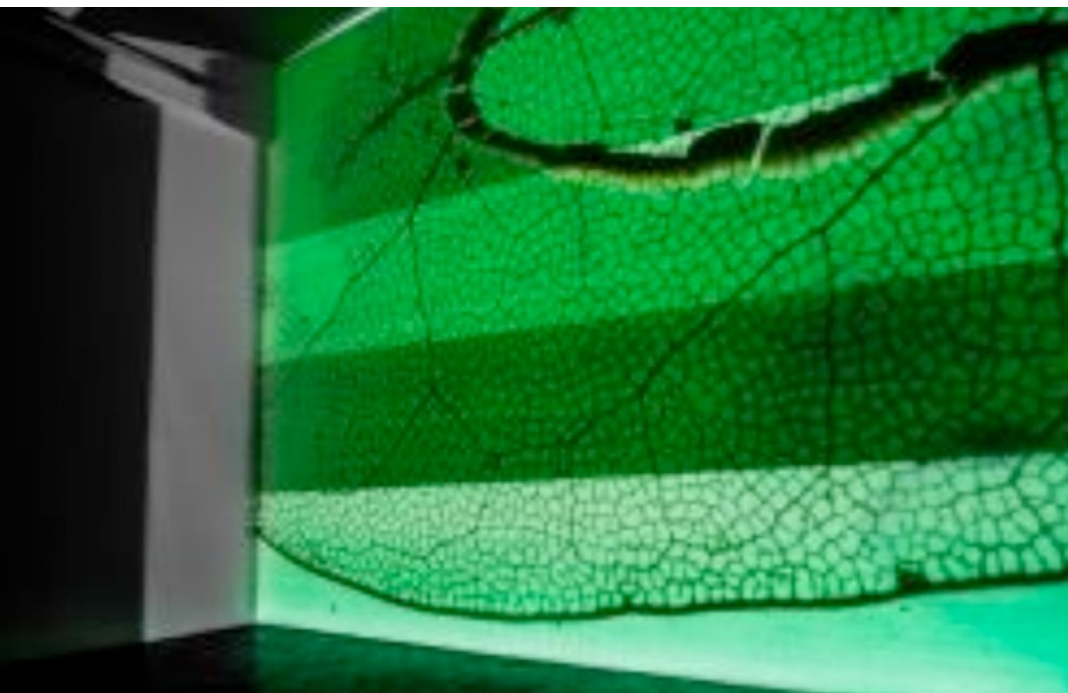
Unreadable Book and AR Book
Roma - Museo Explora 29 marzo 2013



WORKSHOP

Unreadable Book and AR Book
Roma - Museo Explora 29 marzo 2013
Santarcangelo di Romagna (RN) 25 maggio 2013





Directed projections - **BRUNO MUNARI**

“The modern living has provided us with music in compact discs (given that nobody thinks to invite an orchestra at home to hear some music), Now it gives us the projected painting; and every man can have, close to his personal discotheque, his personal gallery with numbered copies of original painting to project ”.

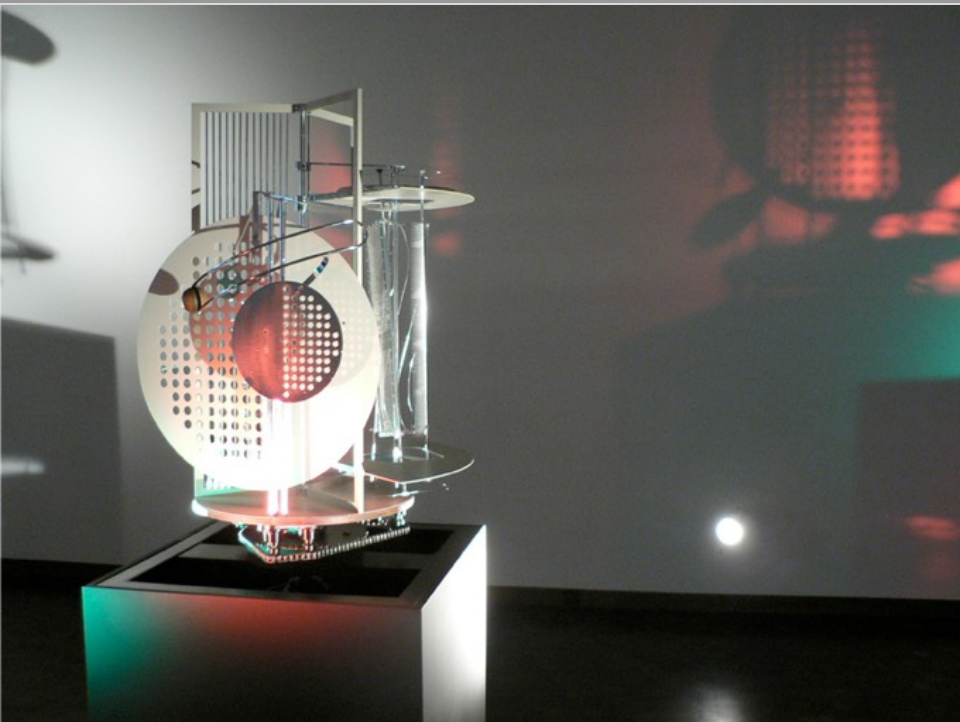


Video Mapping



Camera Picta
MANTEGNA





Light-Space-Modulator **László Moholy-Nagy**

Directed projections (1950) and film *I colori della luce* (B. Munari e M. Piccardo, 1963)
Palazzo Ducale, Sassuolo (MO), 2008

BRUNO MUNARI





Directed projections (1950) and film *I colori della luce* (B. Munari e M. Piccardo, 1963)
Palazzo Ducale, Sassuolo (MO), 2008

BRUNO MUNARI

WORKSHOP

Directed projections and Video Mapping

Casciana Terme (PI) 31 maggio - 1-2 giugno 2013



WORKSHOP

Directed projections and Video Mapping

Casciana Terme (PI) 31 maggio - 1-2 giugno 2013





WORKSHOP

Bologna 2017

Drifting Codes/QrCode Art

WORKSHOP

Drifting Codes/QrCode Art

Roma - Museo Explora 29 marzo 2013



Drifting Codes/QrCode Art



Drifting Codes/QrCode Art



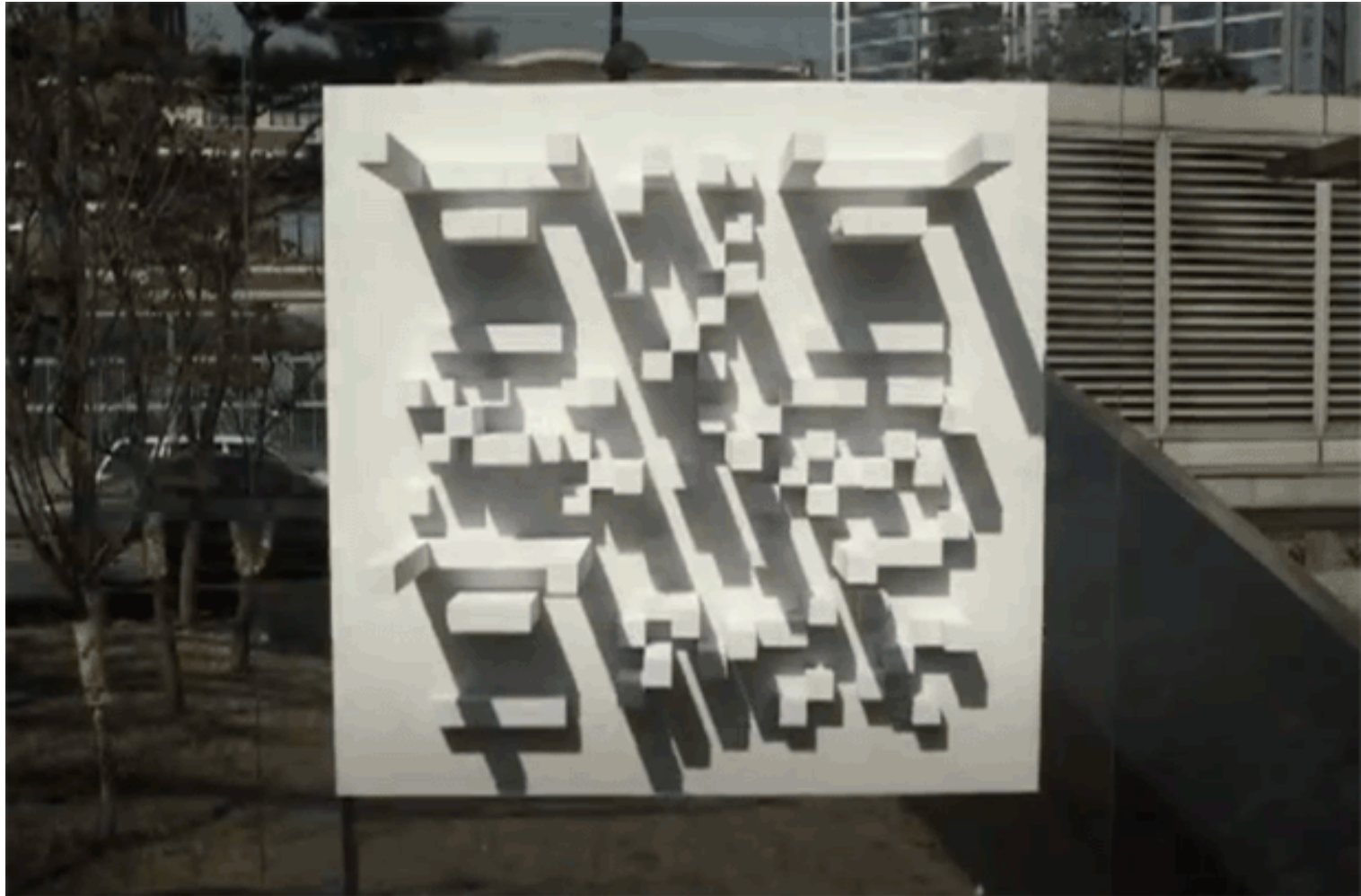
Drifting Codes/QrCode Art



Drifting Codes/QrCode Art



Drifting Codes/QrCode Art



Drifting Codes/QrCode Art

What happens if we intervene graphically on the QR-Code code?

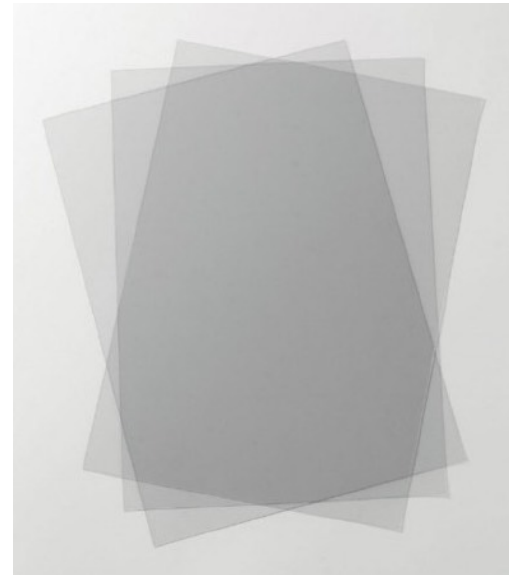
Will we still read our message?

How we do it?

What tools can we use?

Which media?

Drifting Codes/QrCode Art



Drifting Codes/QrCode Art

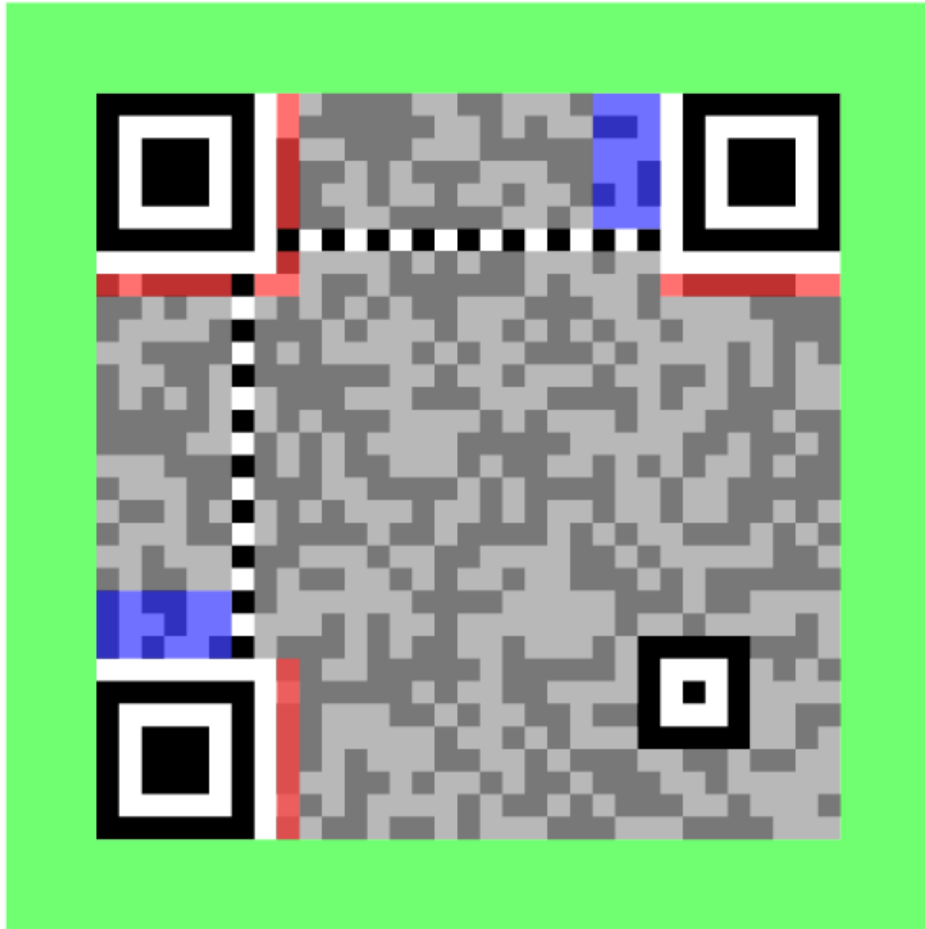
CONSTRAINTS (VINCOLI)





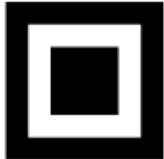



Acetates: use 2

Step 1> create the elaborate and verification
reading of the first level: 20 min.

Step 2> creating the second level and verification
reading of the two superimposed levels: 20 min.

Drifting Codes/QrCode Art



-  1. Version information
-  2. Format information
-  3. Data and error correction keys
-  4. Required patterns
 -  4.1. Position
 -  4.2. Alignment
 -  4.3. Timing
-  5. Quiet zone

Drifting Codes/QrCode Art

Find the action
Exploring changes
Measure the limits
Multiply the points of view
Research the Similarities
Displace the habits